CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, December 23, 1909.

CONTENTS.

CONSTRUCTION NEWS:

Railways 217
Electric Railways 217
Light and Power Plants 218
Bridges 219
Buildings 219
Water Supply and Irrigation 221
Sewerage 222
Garbage Disposal 222
Streets and Roads 222
Manufacturing Plants 223
Miscellaneous Contracts 223
Contract Prices 224
Plans and Specifications on File 226
List of Contracts Pending 226
EXAMINATIONS 225
INDUSTRIAL NOTES 226
PROPOSALS 226

(List of Contracts Pending, and the list of Plans and Specifications on file at the office of Engineering News, will be found on the last page of this Supplement.)

RAILWAYS.

(** denotes that this work is advertised in Engineering News.*)

ABILENE & SOUTHERN.—Surveys have been made for an extension from Abilene, Texas. As offirially noted on Sept. 30, "the This railway now connects Ballinger and Abilene, 55 miles. It is proposed to construct 100 miles additional line. W. E. Kaufman is Secy., Abilene. Noted on Jan. 28, 1909.

AMERICAN CENTRAL.—Plans are ready, it is announced, for building this line in Texas. As officially noted on Sept. 30, the American Central R. R. Co. of Texas is being organized to build a line from San Antonio north to points in Oklahoma, passing through Brownwood and Vernon, Tex. It is planned to continue the line south from San Antonio to the Gulf of Mexico and north through Kansas, Nebraska and the Dakotas. London financiers are interested with the J. B. Taylor & Co., Inc., 30 Church St., New York, in building this line. It is expected that J. B. Taylor & Co. will begin surveys in a short time, and as the financial arrangements have been already made, it is expected that construction work will begin as soon as the surveys can be completed. W. E. McClintock is Ch. Engr., J. B. Taylor & Co."

ARIZONA & GULF.—Company expects to let contract soon for the construction of a railway from Sasabe, on the international border, to Port Lobos, on the Gulf of California, in the State of Sonora, according to press reports. The survey for this road has been finished. The establishment of a deepwater port at the Gulf terminus of the line is proposed.

BROWNWOOD, NORTH AND SOUTH.—John Meade, of Fort Worth and Brownwood, Tex., has been engaged to survey the route for the proposed railroad. It will be about 30 miles long. M. E. Ragsdale, of Brownwood, Tex., is Asst. Engr.

BUFFALO, ROCHESTER & EASTERN.—The Public Service Commission, Second District, Albany, on Dec. 7, heard arguments on the petition of the Buffalo, Rochester & Eastern Railroad Co. for a rehearing of its application for authority to construct a double track railroad from Buffalo to Troy, N. Y. The commission must pass upon this proceeding before the company can go to the Appellate Division for a review of its case should it desires to take that step. The new road is opposed by the New York Central Railroad Co. on the ground that to a great extent it would parallel the Central's lines and that the business is not sufficient to maintain an additional road. Frank W. Stevens, Chn. of the Comn., suggested that, inasmuch as the law would permit an entirely new application on March 16 next, the better way would be to wait until that time and then submit a new case. Counsel agreed to consider this proposition and to write the commission whether they still desire a rehearing or will commence anew in March. Noted on April 1, 1909.

CAMAS PRAIRIE R. R.—This company, noted last week, has been organized for the maintenance of the Oregon, Washington & Idaho R. R. Co., which was formed by the Union Pacific for the construction of a line between Lewiston Junction, Wash., and Lewiston, Idaho, and the line of railway owned by the Northern Pacific between Lewiston, Idaho, and Grangeville, Idaho, making a joint system comprising about 150 miles. F. N. Finch is Supt., Lewiston, Idaho; H. C. Nutt is Vice-Pres.

CHICKASHA TERMINAL.—Chartered in Oklahoma, with $10,000 capital. Offices will be at Chickasha, Okla., and at Purcell, Okla. The company is organized to build a terminal system for the Oklahoma Central Ry., around Chickasha, at a cost of $100,000. The incorporators include: Dorset Carter, Pres.; C. E. Nelson, Secy.; G. H. Parker, B. M. Haile, M. McMillin and W. H. Sparger, of Purcell; and J. M. Aydelotte, of Shawnee, Okla. H. H. Fitzgerald is Ch. Engr., Purcell.

CONCHO, SAN SABA & LLANO VALLEY.—An amendment to the company's charter has been filed in Texas. The original company was organized as an independent project a few months ago, but its charter, rights and franchises have been taken over by the Santa Fe interests. The principal line is to run from San Angelo north to a connection with the Santa Fe's Texico-Coleman cut-off at or near the town of Lubbock, Tex. This line will be 218 miles long and will pass through Lamesa, Tahoka, and several other towns which are at present far removed from railroad transportation facilities. Most of this road is already under contract and construction work is in progress. The charter of the company also provides that it shall build a line south from San Angelo to a point on the San Saba River, 26 miles. It is also provided that a line shall be built from Miles, a station on the Lampasas branch of the Santa Fe, to Llano, a distance of about 135 miles. This lines is also under construction. In addition to these lines the Santa Fe has also let the contract for the construction of a branch road from Lometa to Brady, a distance of about 70 miles. Noted on April 29.

GRAND TRUNK PACIFIC.—PHELAN & SHIRLEY, of Omaha, Neb., have been awarded contract for building 100 miles of track between Edmonton, Alta., and Prince Rupert, B. C.

HUDSON BAY R. R.—The report of the engineers who surveyed the alternative routes of the proposed Hudson Bay Railroad, with the comments of M. J. Butler, Deputy Minister of the Department of Railways, have been laid before Parliament. The investigation of the engineers leads them to conclusions strongly in favor of the Port Nelson route as compared with the Fort Churchill. To connect Churchill with The Pas, Sask., the nearest railroad point at present to Hudson Bay, would require the construction of 477 miles of line, while only 410 miles would have to be built to connect The Pas with Nelson. The Nelson route lies through better country, more adaptable to settlement, and the line could be built with better grades and more cheaply to the mile. The total cost for a line with 80-lb. rails, stations, engine houses, water tanks, yards, two 4,000,000-bushel elevators, and harbor improvements exclusive of lighthouses and buoying, is estimated at $19,108,672 to Fort Churchill; and $16,426,340 to Nelson, a difference of $2,682,332 in favor of the Nelson route. Nelson Harbor is described as more commodious and more easily approached than Fort Churchill, and could be more economically equipped, the cost of developing facilities at Fort Churchill being estimated at $6,750,000, and for Nelson the estimate is a little over $5,000,000. Noted on Aug. 12 and March 25, 1909.

MEMPHIS, PARIS & GULF.—The Railroad Commission of Texas has been advised by this company that it proposes to build an extension from Ashdown, Ark., to Greenville, Tex., 130 miles. Noted fully on Oct. 7. This railroad is now in operation between Murfreesboro and Ashdown, Ark., 41 miles, and from Schaal to Center Point, Ark., 20 miles. Construction is under way between Murfreesboro and Hot Springs. From Hot Springs the line will be extended northeast to Little Rock, Ark., and Memphis, Tenn. Other extensions proposed in Arkansas are from Pike to Arkadelphia; from Murfreesboro to Caddo Gap; and from Schaal southeasterly toward Hope. H. C. McCluer is Ch. Engr., Nashville, Ark.

MEXICO.—The new railway company formed for the extension of the Interoceanic Ry. of Mexico from Teziutian to Nautla, Vera Cruz, capitalized at $5,000,000, has just organized. Work upon the first division, from Teziutlan through Jalacingo, La Garita and Hueytamalco to Tlapacoyan, will be under way early next year. The line from Tezuitlan to Nautla is to be supplemented by a cross line connecting Papanta and Mizantla. Later still, the road probably will have branches extending to the north. The board of directors consists of Ernesto Zorrilla, Pres.; Dr. Manuel de la Fuente, Ing. Leopoldo Villareal, and Juan M. Barron, Mexico City.

MEXICAN GULF.—Application has been made for a charter to build this railway from Thomasville, Ga., to St. Joseph's Bay, Fla., 146 miles, through level country. W. C. Snodgrass, W. I. MacIntyre, J. L. Phillips, F. D. Dismuke, Lee Neel, R. H. Neel, J. F. Evans, M. M. Cooper, A. T. Snodgrass and W. H. Mitchell are interested. Headquarters, Thomasville, Ga.

MOUNTAIN, VALLEY & PLAINS.—Construction will be started about Jan. 1 at Cimarron, N. Mex., the western terminus, and at Guthrie, Okla., the eastern terminus. J. M. Cogan, of Canton, Ohio; H. S. Wannamaker, of Amistad, N. Mex., and D. W. Harrington, of Dalhart, Tex., are interested. J. H. Conlen is Ch. Engr., Dalhart, Tex. Noted on Sept. 16 and Jan. 14, 1909.

MUSKOGEE, HARTSHORNE & SOUTHERN.—Chartered in Oklahoma to build a line 180 miles long from Muskogee, Okla., to Paris, Tex. Capital stock, $160,000. Estimated cost of line, $6,500,000. The incorporators and directors are H. R. Blauvelt, Pres.; J. E. Armstrong, Secy., and R. F. Goff, of Oklahoma City; A. D. Dailey, Treas., and C. R. Day, of Edmond, Okla. The Freebar Engineering & Construction Co., of Kansas City, Mo., is Engr. It is stated that the route probably will be changed so as not to pass through Hartshorne.

NORTHWESTERN PACIFIC.—Contracts on the Willits-Shivley, Cal., extension have been awarded to WILLETT & BURR, of Eureka, Cal. Work will be begun at once at both ends of the gap. The contracts call for two sections of road, each 13 miles in length. Three miles of the section north out of Willits are provided for in a contract awarded to WILLETT & BURR in 1907, when construction of the Eureka extension was begun and later stopped on account of financial conditions. W. C. Edes is Ch. Engr., San Francisco. Noted on Oct. 7.

OKLAHOMA RED RIVER & TEXAS.—Company's charter has been filed at Austin, Tex., and approved. The company, with headquarters at Clarksville, Tex., will construct, maintain and operate a line of railroad from Blossom to Mineola, a distance of 80 miles, passing through the counties of Lamar, Red River, Hopkins, Franklin and Wood. The capital stock is $80,000. Incorporated by C. P. Moore, Frank Miesch, Joe T. Brown, J. L. Skinner John T. Upchurch, John Miesch, E. L. Canterbury, W. H. Dickson, Roscoe Johnson and L. O. Trice.

OTTAWA, MONTREAL & EASTERN.—Application will be made at this session of the Dominion Parliament for incorporation of the Ottawa, Montreal & Eastern Ry. Co. The proposed railway will run from Lake Megantic, in Compton County, through the counties of Wolfe, Arthabaska, Richmond, Drummond, Yamaska, Bagot, Richelieu, St. Hyacinthe, Vercheres and Chambly, crossing the St. Lawrence at Longueuil. Power is asked to construct a tunnel under, or a bridge over, the St. Lawrence River, to be used for railway purposes and for the passage of pedestrians, vehicles, and cars, and to collect tolls for the use of said bridge, or tunnel, and thence in a westerly direction through the counties of Hochelaga, Jacques Cartier, Laval, Terrebonne, Two Mountains and Argenteuil, thence crossing the Ottawa River into the province of Ontario to the city of Ottawa, passing through the counties of Prescott, Russell and Carleton, with power to build branch lines to Arthabaska and Victoriaville, in the county of Arthabaska, and to Yamaska, in the county of Yamaska, and to authorize the entering into agreements with other companies.

PARIS & MOUNT PLEASANT.—Contract for grading a portion of this railway has been awarded to M. TANSEY, of Shreveport, La., it is stated. This project was officially noted on Dec. 9.

PORTLAND, LAKE VIEW & EASTERN.—Incorporated with $10,000,000 capital stock. A branch office is to be maintained in Portland, although the main offices will be at Phoenix, Ariz., where the articles of incorporation were filed. The company plans a $10,000,000 system which will thread the State of Oregon, penetrating the land now under the course of development, which is rapidly becoming important, because of great irrigation projects. The main line will have its terminal in Portland, running south and southeasterly to Goose Lake. Several branch lines are specified in the plans. The main line south will have its terminal at Phoenix. About 500 miles of track will be laid in Oregon. The life of the corporation is set at 50 years with privilege of renewal as provided by law. William S. Dexter, Edward Robinson and Sidney R. Rheinstrom, of Omaha, Neb.; George W. Passell, of Portland; Robert B. Davey, of Edgemont, S. Dak., and Louis H. Chalmers and Henry B. Wilkinson, of Phoenix, Ariz., constitute the Board of Directors. Mr. Passell is named as general agent of the company and Edward Robinson, of Omaha, is named as civil engineer in charge of construction.

SAN DIEGO & ARIZONA.—Contract has been awarded to ROBERT SHERER & CO., of Los Angeles, Cal., for grading 14 miles of this line in Mexico, including two concrete-lined tunnels, each 500 ft. in length. Contracts will be awarded for four steel bridges, with total length of 900 ft. Noted on June 3 and April 29.

SAN DIEGO, EL PASO & ST. LOUIS.—Company has made surveys from El Paso, Tex., east to Artesia, N. Mex., 197 miles. The line, as projected, will run eastward from Artesia to the Red River, in Texas, 325 miles. Noted officially on July 22. P. A. McCarthy is Ch. Engr., El Paso, Tex.

UTAH & NEVADA.—Incorporated by I. W. Ayres, of Oakland, Cal.; C. W. Scofield, J. S. Sterling and H. G. Fritz, all of New York, to build a railway from Salt Lake City, Utah, to Ely, Nev., connecting there with the Tonopah & Tidewater R. R.

VIRGINIA WESTERN.—Chartered to build the Virginia end of the proposed West Virginia Ry. Co.'s line which will run from Clifton Forge, Va., to Keyser, W. Va., about 160 miles. The line will be about 100 miles long in Virginia, and will cross the boundary in Highland County. The incorporators include J. J. Stoutenburg, Pres.; A. V. Huyler, Vice-Pres.; V. M. Bovie, Secy.; and J. G. Ropes, Treas., all of New York, who are directors; also B. H. Hiner, of Franklin, W. Va.; H. H. Byrd and James M. Douglas, of Warm Springs, Va.; and C. M. Lunsford, of Monterey, Va. Bids will be asked soon and construction is expected to begin next spring. Estimated cost of the line is $10,000,000. The West Virginia Rys. Co. was noted on Nov. 25. Henry A. Slaven, of Monterey, Va., is Asst. Engr.

WESTERN OF GEORGIA.—A stockholders' meeting will be held this week to authorize $500,000 of bonds. The proposed line is from Aberdeen to Newnan, Ga., 13 miles, and from Newnan to Franklin, Ga., 22 miles. As noted on July 8, construction contract has been let to IRA L. McCORD, 42 Broadway, New York. W. C. Wright, of Newnan, Ga., is Secy.

WESTMORELAND & RED BOILING SPRINGS.—Albert J. Bright, Nashville, Tenn., Ch. Engr., has completed surveys for this line and plans are under way for commencing construction. As noted on Sept. 2, this railway will connect Westmoreland and Red Boiling Springs, Tenn., 28 miles. Noted also on May 27.

WINNIPEG, SALINA & GULF.—Plans are ready for building the railway and $6,000,000 of bonds have been sold by the company. There will be seven steel bridges. This project was fully noted on Nov. 18. The Interstate Construction Co. will be incorporated to build the railway which will be about 900 miles in length. H. Leon Miller is Pres., Salina, Kan. Headquarters of the company are in the National Bank of Commerce Bldg., St. Louis, Mo.

ELECTRIC RAILWAYS.

SODUS, N. Y.—The New York State Rys. Co. will make improvements this winter on its Rochester & Sodus Bay R. R., between Sodus and Ontario, N. Y. W. R. W. Griffin is Gen. Supt., 267 State St., Rochester.

CHARLEROI, PA.—The West Side Electric St. Ry. Co., it is announced, will build a 10-mile extension from Charleroi to Ellsworth next year. C. N. Bennett, 101 Phillips Ave., Pittsburg, is Ch. Engr.

PHOENIXVILLE, PA.—The Phoenixville, Valley Forge & Strafford Street Railway Co.'s charter was approved on Dec. 17 by the Governor. The new line will be ten miles long, connecting Phoenixville with Strafford by way of Valley Forge. The capital is $60,000. Incorporators are Thomas E. O'Connell, of West Chester, Pres.; Senator O. E. Thomson, John A. Dismant, C. F. Boden, Samuel W. Deininger, A. W. Kley, H. H. Gilkyson, Jr., E. C. Meir and I. E. Miller, Phoenixville.

LEBANON, PA.—A charter was granted on Dec. 15 to the Ephrata & Lebanon St. Ry. Co., to operate an electric line between Ephrata, Lancaster County, and Lebanon, 22½ miles. Capital, $125,000. The incorporators are S. T. Erb, Ephrata, Pres.; M. Kinport, Henry Westerhoff and Reuben Stine, of Ephrata; M. H. Shirk, S. S. Hamenstine and H. B. Hollinger, of Lincoln; J. E. Wolf and A. E. Lane, of Clay; Harry Bennetch, of Klinefeltersville, and U. B. Horst, of Schaefferstown. As officially noted on Nov. 18, "company probably will let contracts for building its line about April 1, 1910. The line will be 23 miles long and will run from Ephrata to Clay, Hopeland, Kleinfeltersville, Schaefferstown, Iowa and Lebanon. Preliminary survey has been made and right-of-way secured. S. T. Erb, Ephrata, is Pres.; F. H. Shaw is Ch. Engr., Lancaster, Pa." Noted also on Oct. 21.

MONACA, PA.—An extension of time for one year has been granted the Monaca & Ambridge Street Ry. Co., whose franchise through Monaca, Moon and Hopewell Townships expired on Dec. 1.

WELLSBORO, PA.—The Tioga Traction Co. plans to furnish light and power along its proposed line which will connect Wellsboro, Whitneyville, Cherry Flats, Covington and Mansfield. Company has secured the necessary right-of-way and expects to begin work early next spring. Company will build a power plant and repair shop at Wellsboro, where its headquarters are located. The railway will be about 15 miles long. Capital stock authorized, $150,000. B. F. Edwards, Wellsboro, is Pres.; Thomas L. Young, Wellsboro, Vice-Pres.; H. C. Kerwin, Wellsboro, Secy.; S. O. Putnam, Covington, Treas.; Geo. F. Keagle, Avis, Gen. Mgr. and Pur. Agent; H. C. Young, Wellsboro, is Ch. Engr.

DANBURY, N. C.—Dr. H. P. MacKnight, Ch. Engr. of the North Carolina Traction Co., Southern Pines, N. C., announces that this company has not yet been fully organized. The original incorporators will have charge of the work until Jan. 1, 1910, when officers and directors will be elected. The line, as projected, will be 80 miles in length, and will extend from Winston-Salem to Rural Hall, Capell Gap, Vade Mecum, Piedmont, Danbury, Hartman, Campbell, N. C., and Stuart, Va. Work has already been begun on the line to the company expects to award all contracts within the next month. The company proposes to erect a power station on the Dan River and will locate its repair shops at Danbury. Noted on Nov. 25.

NASHVILLE, TENN.—The Nashville & Adairville Ry. Co. has been chartered in Tennessee to build an electric railway from Nashville through Goodlettsville, to Whitehouse, and thence to Adairville. Capital stock, $25,000. Incorporators: W. A. Buntin, B. P. Gilbert, H. M. Hayes, S. C. Robb and R. A. Wilson, all of Nashville.

FOSTORIA, OHIO.—We are officially advised that the Fostoria & Fremont Ry. Co. will let contracts next month for building its electric line. The railway will be 21½ miles long and will connect Fostoria, Amsden, Kansas, Burgoon and Fremont. Surveys are made, capital obtained and right-of-way secured. F. D. Carpente[illegible] Pres., Lima, Ohio; J. S. Reigle is Ch. Engr., Findlay, Ohio. J. D. McDonel is Secy., Fostoria. Noted on Dec. 16 and Nov. 25.

ZANESVILLE, OHIO.—We are officially informed that the Zanesville & Meigs Valley Traction Co. will let contracts for building its line. The proposed railway will be 41 miles long and will run from Zanesville to Beverly, Ohio. Surveys are made and right-of-way obtained. Capital is being negotiated. There will be a quantity of rock work. C. T. Gale is Pres., Zanesville. A. C. Harrington & Co., Zanesville, are Engrs. Noted on Aug. 19.

CLEVELAND, OHIO.—The City Council has granted to the Cleveland Underground Rapid Transit Co. a 75-year franchise for the use of certain streets for subway purposes, it is stated. The "Cleveland Subway Co.," as noted in the issue of April 22, was incorporated to construct electric railways under all the principal streets of Cleveland, including Euclid and Superior Sts., Clear and Cedar Aves., Broadway, Detroit Ave., etc. Application for a franchise has been filed. Capital stock, $10,000. Incorporators: F. A. Mehling, W. A. Greenland, A. L. Lang, William C. Fischer and Thomas P. Schmidt.

CLEVELAND, OHIO.—It is announced that additions and improvements in the equipment of the Municipal Traction Co.'s property to the extent of $2,500,000 will be made immediately after the approval of the franchise at a referendum election. The terms of the ordinance approved by Federal Judge Taylor and recently passed by the City Council compel the immediate equipment of all cars of the system with pay-as-you-enter fare box. Plans have already been prepared for the expenditure of about $1,000,000 on additional power equipment. The election will be held about Feb. 15. T. L. Johnson is Mgr.; W. T. Cook is Supt., 620 Electric Bldg., Cleveland. Company operates about 250 miles of railway.

SOUTH BEND, IND.—Contracts for subgrading on the South Bend & Logansport Traction Co.'s line have been let as follows: Southern part, TRIAD ENGINEERING & CONSTRUCTION CO., Goshen, Ind.; middle portion, U. S. LITGART; northern portion, which comes into South Bend, REED & SONS, Mishawaka, Ind. DAVID PEPPER, JR., of Philadelphia, and South Bend, is the general contractor for building the railway, and he is represented in South Bend by J. M. McCampbell, who has charge of the work of construction. The ILLINOIS STEEL CO. has received the contract for the rails. Contract for the ties and poles has not yet been given out, although it will be soon. By next spring the sub-grading will be completed from South Bend to Plymouth, 21.8 miles, and during 1910 the grading will be completed as far as Culver, and then from Culver to Logansport, which will complete the line. Thomas Moredock is Pres.; Virginius Nicar, Treas., South Bend. Noted on Nov. 18 and Sept. 30.

DETROIT, MICH.—The Detroit, Lansing & Grand Rapids Ry. Co., it is announced, has awarded a contract to F. C. WALES, 8 Beacon St., Boston, Mass. (not P. C. Johnson as previously noted), for making the location surveys for its projected railway between Detroit, Lansing and Grand Rapids.

PEORIA, ILL.—The City Council has granted an amended franchise to the Peoria & Galesburg Interurban Co. As noted on Aug. 19, the City Council of Galesburg "granted to S. F. Atwood, Secy. of the Peoria & Galesburg Ry. Co., a 25-year franchise to operate a street railway in Galesburg. The Peoria & Galesburg Ry. Co. plans to construct a 60-mile line from Peoria to Farmington and Galesburg, Ill., with a spur from Bloomington to Canton. Surveys are made and practically all capital secured for construction of the line. Contracts will be let soon. C. H. Dunn, Peoria, Ill., is Ch. Engr. S. F. Atwood, Peoria, Ill., is Secy. and Treas. B. R. Stephens, of Springfield, Ill., is Pres. and Gen. Mgr."

BELLEVUE, ILL.—By accepting the franchise granted by the City of Mascoutah the Belleville & Mascoutah Transit Co. has acquired the entire right-of-way for its electric line from Belleville to Mascoutah, and the work of completing the roadbed will proceed rapidly. The line will be about ten miles long. David O. Thomas is Gen. Mgr., Mascoutah, Ill. Noted on Nov. 4 and Aug. 19.

CHICAGO, ILL.—Incorporation papers have been issued for the United Railway Co., which is to take over the properties of the Consolidated Traction Co. Company will seek a city franchise. The license to incorporate was issued to Charles G. Dawes, Emile K. Boisot, George P. Hoover and Andrew Cook, the committee which for several months has been trying to reorganize the Consolidated Co. The capital stock of the United Railway Co. is placed at the nominal sum of $100,000, which it is said will be held in escrow subject to larger issues of certificates on the same plan as was followed in the reorganization of the Union Traction Co. into the Chicago Railways Co. When a franchise is issued to the company an operating agreement will be entered into with the Chicago Railways Co., it is stated, and the lines of the Consolidated Co. will be rehabilitated and new cars and equipment purchased so that the outlying sections of the city will have the same service as is now being given by the two principal companies.

KENOSHA, WIS.—The Waukegan, Rockford & Elgin Traction Co., has asked the City Council to consider a plan to build an electric railway into Kenosha. Robert D. Wynn is Vice-Pres., Waukegan, Ill.

ALTAMONT, KAN.—The Kansas Union Traction Co. may soon commence construction on its line from Parsons to Coffeyville, Columbus, Oswego, Altamont, Mound Valley and Cherryvale, 90 miles. Repair shops and the power station will be located at Altamont. Company plans to furnish current for light, heat and power purposes. Capital stock authorized, $1,000,000; issued, $500,500. William J. Jones, Altamont, is Pres.; Phillip Strack, 23 Postal Telegraph Bldg., Indianapolis, Ind., Vice-Pres.; Barney McDaniel, Altamont, Secy.; C. N. Petty, Altamont, Treas. Archer, Rollins & Co., Kansas City, Mo., are Electrical Engrs. Noted on Aug. 26.

ABERDEEN, S. DAK.—The Aberdeen St. Ry. Co. probably will let contracts this winter for building four miles of track. C. N. Herreid is Pres.; C. F. Easton, Secy. Noted on Nov. 25.

CORPUS CHRISTI, TEX.—We are officially advised that all contracts have been let for the Corpus Christi Street & Interurban Ry. Co.'s belt line around Corpus Christi, 5⅛ miles. Company is building the railway with its own forces. Contract for overhead construction was awarded to the WESCO SUPPLY CO. Daniel Hewitt is Pres., V. S. Heinly is Secy. and Treas., Corpus Christi. Noted on Nov. 18.

UVALDE, TEX.—The Uvalde & Leona Valley Interurban Ry. Co. will build from Uvalde to Batesville, Tex., 25 miles. Two wooden bridges will be required. Charles Peterson is Pres., A. M. Avant, Vice-Pres., of San Antonio, Tex.; M. M. McFarland, Vice-Pres. and Gen. Mgr.; F. J. Rhine, Secy. and Treas., and W. D. Love, General Attorney, all at Uvalde, Tex. Noted on Oct. 21.

LAWTON, OKLA.—A franchise was voted at a special election recently held in Lawton, to the Lawton & Fort Sill Electric Railway, which proposes to build a street railway in Lawton, and an interurban railway through the Fort Sill Military Reservation, connecting Lawton with Fort Sill and Medicine Park, northwest of the reserve, a distance of 20 miles. The right-of-way through the military reservation has been granted to the company by the War Department. Noted on Nov. 18 and Oct. 28.

WHITE SALMON, WASH.—H. S. Hall, City Engr., White Salmon, will make survey for an electric railway which is to be built between White Salmon or Bingen, on the Columbia River, north to Snowden, 16 miles.

SPOKANE, WASH.—The Big Bend Transit Co., which proposes to build from Spokane, Wash., west along the Little Spokane River to Metre Rapids, has secured most of its right-of-way. William A. Nichols is Pres., 105 Howard St., Spokane. Noted on Aug. 5.

VANCOUVER, WASH.—The Tum Tum Mountain Ry. Co., it is stated, is ready to commence construction. As noted on Sept. 23, this company plans to build an electric railway to connect Chelatchie, Prairie, Amboy, View, La Center and Ridgefield, a distance of about 40 miles. A. Aronston, H. J. Hener and others, of Vancouver, are interested.

CLE ELUM, WASH.—M. E. Randall, of Ellensburg, Wash., has filed articles of incorporation for the Cle Elum Traction Co., of Tacoma, which will operate in Kittitas County. Company is headed by F. S. and H. E. Farquhar, of Tacoma, who have already secured a franchise to construct an electric railway between Cle Elum and Roslyn. Capital stock, $300,000. Noted on Aug. 12.

OAKLAND, CAL.—The Southern Pacific Co., San Francisco, has applied to the Board of Supervisors in the name of the Central Pacific Ry., for a 50-year franchise to operate a double-track, standard-gage, electric railway from Melrose to Stanley Road, a distance of four miles. Similar applications will be made in both San Leandro and Hayward for the same privileges. A. H. Babcock is Elec. Engr.

REDWOOD CITY, CAL.—Baldwin & Howell, 318 Kearny St., San Francisco, report that a corps of engineers, headed by A. H. Lohman of San Francisco, has started from Redwood City to make a preliminary survey for an electric line across the mountain to La Honda and the big basin, as noted last week. The proposed road will run from a point of deep water through Redwood City directly to Woodside, from which place it will take one of two routes over the mountain. It is estimated that the road will cost approximately $1,000,000. Noted last week.

HAMILTON, ONT.—The Hamilton, Waterloo & Guelph Ry. Co. plans to construct 60 miles of new track next year; new lines will be built between Hamilton and Berlin, and Hamilton and Guelph. John Patterson is Gen. Mgr. Noted on Nov. 25.

LONDON, ONT.—It is announced that the Southwestern Traction Co. expects to build from 20 to 40 miles of new line during 1910. One line will extend from London to Ingersoll and the other from St. Thomas to Aylmer, Ont. S. W. Mower is Gen. Mgr. Noted on Oct. 7.

LIGHT AND POWER PLANTS.

(* *denotes that this work is advertised in Engineering News.*)

PORTLAND, ME.—Plans and specifications for electric work and plumbing for the new city hall building have been revised. Bids will be received by the City Hall Building Commission at the Mayor's office until Jan. 3. Plans and specifications can be seen at the offices of Carrere & Hastings, Archs., 225 Fifth Ave., New York, and John Calvin Stevens and John Howard Stevens, Portland.

BANGOR, ME.—Negotiations have been closed by which the Bangor Ry. & Electric Co. has secured the entire property known as the Veazie Mills water power and dam. The company contemplates the construction of a new concrete dam. C. M. Tolman is Ch. Engr. and Elecn.

WATERVILLE, ME.—The Messalonskee Electric Co., Waterville, which has purchased the water privilege of Besse & Morrison, about 1½ miles from Clinton, is preparing to cut a canal and build a concrete dam. W. S. Wyman is Mgr. and Ch. Elecn.

NORTHFIELD, VT.—MOODY & ALLEN, of Montpelier, Vt., who have secured contract for street lighting here, are making preparations for the construction of another power plant above their present plant in Middlesex, where they own the water privilege and necessary land for flowage. Estimated cost, about $55,000.

STOWE, VT.—Contract for the construction of the high-tension transmission line from Cady's Falls to Stowe has been awarded to the NORTHERN ELECTRIC CO., of Burlington, Vt. The line will furnish electricity from the Morrisville municipal electric plant to operate the Mt. Mansfield Electric R. R., which extends from Waterbury to Stowe. M. C. Clark is Gen. Mgr. Northern Electric Co.

THREE RIVERS, MASS.—Plans are being prepared for the construction of a new hydroelectric power plant for the Palmer Mills of the Otis Co. here. Work will probably involve the erection of a new dam at the foot of the gorge below the mill and the abandonment of the present dam and canal.

ESSEX, MASS.—The citizens have voted to award contract to the GLOUCESTER ELECTRIC CO. to light the streets of the town. The company will furnish 100 incandescent lamps of 32 c. p. each for $1,600 and will supply electricity for lighting the town hall to the amount of $50. For the next 25 lamps added the cost will be reduced to $15.50 per lamp, and for all over that amount the price will be $15 per lamp per year. E. L. Munger is Mgr.

PITTSFIELD, MASS.—The Pittsfield Electric Co. has engaged Stone & Webster, Stone & Webster Bldg., Boston, Mass., to prepare plans for enlarging its plant at Silver Lake to increase the output to 1,000 HP. As soon as plans are completed, the company will petition the State Commissioners of Gas and Electricity for permission to increase its capital stock. Fred Treat is Ch. Engr.

WOONSOCKET, R. I.—The J. W. BISHOP CO., of Providence, has been awarded contract to build a 1-story brick power house for the Lafayette Worsted Co., Hamlet Ave., Woonsocket. Fontaine & Kinnicutt are Archs., Commercial Bldg., Woonsocket.

BRIDGEPORT, CONN.—Preparations are being made by the Connecticut Co., for the erection of an addition to its power house 120 × 42 ft., in which additional equipment will be installed. Estimated cost, $20,000. C. H. Chapman is Supt.

COLCHESTER, CONN.—Plans are being made by the National Electric Shoe Co. for the installation of an electric light plant. A 75-KW. generator will be installed at first and a larger one later.

EAST NORWALK, CONN.—The District Committee has authorized the extension of the electric transmission lines from Gregory Boulevard to Marvin Ridge.

NEW MILFORD, CONN.—The plant and holdings of the New Milford Electric Light Co. have been purchased by Verton P. Staub and E. J. Emmons, representing local business men, who plan to establish a 24-hour service and to furnish electricity for both lamps and motors. At present the company furnishes a lighting service. Purchase price, about $75,000.

NEW YORK, N. Y.—Bids are asked by the Park Board until 3 p. m., Dec. 30, for all materials and labor required for furnishing and installing electric lighting fixtures in new addition (F) of the Metropolitan Museum of Art, in Central Park, on the west side of Fifth Ave., opposite 83d St., Boro. Manhattan. Henry Smith is Pres. Bd.

Bids are asked by the Board of Health until 10 a. m., Jan. 4, for furnishing all the labor and materials necessary or required to furnish and install electric and gas lighting fixtures, etc., with all necessary alterations and other work incidental thereto, in the office building at Fleet and Willoughby Sts., Boro. Brooklyn.

NEW YORK, N. Y.—Plans have been filed by the Metropolitan Street Ry. Co. for a 1-story substation to be erected on Madison Ave. south of 86th St. Estimated cost, $3,500.

*KINGS PARK, N. Y.—The bids received by the State Commission in Lunacy, Albany, on Dec. 15, for the construction of power plant and connecting mains at the Kings Park State Hospital, Kings Park, were: G. & W. Mfg. Co., 26 Cortlandt St., New York, $81,293; Edward Joy Co., Syracuse, N. Y., $76,273; F. W. Waggoner Co., 45 East 42d St., New York, $103,957; Blake & Williams, 24 Barrow St., New York, $78,996; E. Rutzler & Co., 404 East 49th St., New York, $74,325; R. T. Ford Co., Rochester, N. Y., $66,900; W. B. Armstrong, Albany, $79,690; W. M. Sheehan & Co., 136 Liberty St., New York, $91,975; A. D. Granger Co., 90 West St., New York, $89,439; Evans, Almirall Co., P. O. Box 1876, New York, $73,975. T. E. McGarr is Secy.; F. B. Ware is State Arch.

Bids were also received on Dec. 15 by the State Lunacy Commission for construction of electric feeder cables to laundry, transformers and distributing board at the Kings Park State Hospital, Kings Park, as follows: W. M. Sheehan Co., 136 Liberty St., New York, $4,195; A. D. Granger Co., 90 West St., New York, $5,523; Lord Electric Co., 213 West 40th St., New York, $5,384; New York Construction Co., Marbridge Bldg., New York, $3,340; Commercial Construction Co., 114 Liberty St., New York, $3,672; E. J. Duggan, 1133 Broadway, New York, $4,100; New England Engineering Co., Greenwich, Conn., $6,847.

NORTH SYRACUSE, N. Y.—Plans are being considered for lighting the streets of this village. It has not yet been decided whether gas or electricity will be used.

TRENTON, N. J.—The United Gas & Water Co. was incorporated here on Dec. 17 with a capital of $500,000. It is to act as a holding company. The principal office is at No. 304 Market St., Camden. Frank B. Jess is Statutory Agt.

FLEMINGTON, N. J.—Preparations are being made by the FLEMINGTON ELECTRIC LIGHT, HEAT & POWER CO. for the installation of a new lighting system. An all-night schedule will be established and 35 Westinghouse arc lamps of 2,000 c. p. will be placed in the principal sections of the town. A large number of tungsten lamps will also be installed. The new contract is for five years. T. Bloomer is Ch. Engr.

PHILADELPHIA, PA.—Contract for furnishing and installing an arc lighting system for the electric towers in the college has been awarded to J. F. BUCHANAN & CO., 36 North Fourth Street, Philadelphia, at $4,087. WILLIAM A. ANDERSON secured contract for improvements to the power house, including a Westinghouse steam-driven air compressor and tank and making connection between the underground duct and filter house, at $4,620.

SCRANTON, PA.—The Scranton Electric Co., L. H. Conklin, Gen. Mgr., contemplates the construction of a central power plant, an addition to the suburban plant located on North Washington Ave. for the installation of a new switchboard, engines and generators, and a 5,000-KW. steam turbine. The company also contemplates tearing down the Dix Court power house and erecting a steel building. The output of the plant has been increased from 800 to 1,600 HP. by the installation of two new engines.

WASHINGTON, D. C.—Bids will be received by the Department of the Interior until 2 p. m., Jan. 21, for remodeling the power plant, Government Hospital for the Insane, Washington, in accordance with the drawings and specifications, copies of which, with form of proposals, may be had on application at the Department. J. E. Wilson is Asst. Secy.

RICHMOND, VA.—The Virginia Ry. & Power Co., Richmond, is considering the purchase of a new steam turbo-generator.

The City Council has appropriated an additional $65,000 for the municipal electric light plant for the construction of the distributing system. Total appropriation to date, $415,000.

WILMINGTON, N. C.—See item under Water Supply-Irrigation.

HICKORY, N. C.—The Water-Power Electric Co. has been organized here, with Col. Marcellus E. Thornton, Pres. The company owns a water-power site on the Catawba River at Hickory, and has obtained the necessary rights for the development of 9,000 HP. The company also owns the Thornton Light & Power Co., which controls the electric light business in Hickory, a place of 8,000 inhabitants. It is desired to finance the enterprise by the sale of bonds, and the work will go forward whenever satisfactory arrangements are made for this financing.

CHARLESTON, S. C.—The Charleston Consolidated Ry., Gas & Electric Co., W. W. Fuller, Supt. and Ch. Elecn., contemplates placing contracts soon for a 1,000-KW. turbine.

A company has been incorporated by D. G. Zeigler, of Jacksonville, Fla., G. H. Miller, S. J. Platsch, and others, for the purpose of constructing a hydroelectric power plant on the Edisto River, 28 miles from here. Capital, $1,500,000. The company proposes to develop 12,000 HP. for electric transmission.

GREENVILLE, S. C.—Plans are being considered by the Union Bleaching & Finishing Co. for improvements to its plant, to include the installation of additional machinery, and changing the motive power from steam to electric motor drive. Electricity will be secured from the Greenville transmission system of the Sotuhern Power Co.

MULBERRY, FLA.—The Prairie Pebble Phosphate Co., of Mulberry, is planning to improve its power plant, including the installation of a new electric generating unit rated at about 500 HP.

JACKSONVILLE, ALA.—Plans are being made for the construction of a large weaving mill here, the entire plant to be operated by electricity. George P. Ide is interested.

MERIDIAN, MISS.—Application has been made to the City Council by M. R. Grant and others for a franchise to construct and operate an electric light plant and street railway here.

CHARLESTON, MISS.—Improvements are contemplated to the municipal electric light plant, water-works and sewerage system here. Estimated cost, about $10,000.

WINCHESTER, TENN.—Bonds have been sold by the city for $14,000 for improvements to the municipal electric plant and water-works. The power house will be remodeled and new water wheels installed.

DELPHI, IND.—The City Council has granted the Fort Wayne & Wabash Valley Traction Co., C. D. Emmons, Gen. Mgr., Fort Wayne, Ind., a franchise to furnish electricity for lamps, heat and motors here. The Carroll Electric Co. is operating an eelctric plant in Delphi at present, but furnishes no day service.

STURGIS, MICH.—Bids will soon be asked, it is stated, for machinery for a new municipal power plant, plans for which are now being prepared.

OAK PARK, ILL.—Plans are being prepared for an addition to the power plant of the Oak Park Light, Heat & Power Co. A. E. Roberts, of Oak Park, is Arch.

JOLIET, ILL.—Plans for the installation of the boulevard system to be installed in the business district of Joliet by the Economy Light & Power Co., are nearly completed. Work will commence on the system soon. The wires will be placed in underground conduits. Charles A. Munroe is Gen. Mgr.

THURMAN, IOWA.—The Malvern Light & Power Co., L. W. Bothner, Pres. and Mgr., Malvern, has submitted a proposition to the town officials offering to extend its transmission from Tabor to Thurman, porviding a 20-year franchise is granted and the town agrees to enter into a contract with the company to furnish 30 incandescent lamps of 32 c. p. for street lighting at $1.25 per lamp per month, the people of Thurman to take $5,000 of bonds.

KEOKUK, IOWA.—H. L. Cooper, 60 Wall St., New York, and others are planning to commence work soon on the construction of a large dam in the Mississippi River in connection with a hydroelectric power project. The Keokuk & Hamilton Water Power Co. is behind the project.

STILLWATER, MINN.—The State Board of Control has awarded WASHINGTON COUNTY LIGHT & POWER CO. contract to furnish electricity for lamps and motors for the new state prison and its factories. The service will be supplied from the hydroelectric plant at Riverside on Apple River in Wisconsin. Work on construction of the transmission line will commence at once.

LEAVENWORTH, KAN.—Preparations are being made by the Leavenworth Light, Heat & Power Co. for improvements to its plant. The output will be increased from 1,400 to 2,400 HP. Work will include the erection of an addition to the boiler house, the installation of new boilers and two turbo-generator sets with a rating of 500 HP. each. Estimated cost, about $25,000. E. S. Springer is Supt.

ERIE, KAN.—See item under Water Supply-Irrigation.

VALENTINE, NEB.—See item under Water Supply-Irrigation.

LEES SUMMIT, MO.—Application has been made to the Council by Levi G. Morris and others for a franchise to construct and operate an electric light and power plant here.

KANSAS CITY, MO.—The Indiana Silo Mfg. Co., of Anderson, Ind., is contemplating the construction of a large plant here to be operated entirely by electricity. Power for operating the plant may be purchased.

JEFFERSON CITY, MO.—The Big Naunga Power Co., lately incorporated, is contemplating the construction of a hydro-electric power plant here. A dam will be constructed to cost from $35,000 to $45,000, which will develop from 1,600 to 2,000 HP. I. Phillips, of Buffalo, Mo., is Pres.

WHITE CLIFFS, ARK.—See item under Manufacturing Plants.

HASKELL, TEX.—The Haskell Power Co. will install electric generating machinery and auxiliary apparatus in its plant this winter.

GALVESTON, TEX.—The City Council has adopted the report of the committee recommending the acceptance of the bid of the Lowe Electric Co., of Galveston, for the installation of turbo-generators rated at 2,100 KW., together with condensers, at $11,900. The company is to allow the city $900 for the old engines, etc., in the power plant.

COLORADO CITY, COLO.—Plans are being considered for the construction of a new electric light and power plant here. Stanley S. Effinger, of Effinger & Dunbar, is interested.

TRINIDAD, COLO.—Plans are being considered by the Southern Colorado Power & Ry. Co. for a large power development, including a chain of electric plants extending along the Sangre de Cristo and Culebra ranges, if the present plans for reorganization are consummated. F. A. Warfield is Ch. Engr. and Elecn.

LYONS, COLO.—R. W. Jones has filed on a reservoir site and pipe line on the North St. Vrain for power purposes. The reservoir will be located on the Billing Ranch and the water conducted by a 54-in. pipe to Lyons, about six miles distant, where the power house is to be located. Estimated cost of diversion dam is $36,000, and of pipe line, $60,000.

ROSWELL, N. MEX.—The Roswell Electric Light & Power Co., W. H. Gillenwater, Gen. Mgr., has notified the farmers of the Roswell section that it is prepared to furnish electricity for the irrigation of 10,000 acres of land during the coming season, and also that it will extend its transmission lines for a distance of 25 miles if the use of electrical energy for irrigating 5,000 acres is guaranteed.

ARTESIA, N. MEX.—Plans are being considered to erect a hydroelectric power plant on the Penasco River, to furnish electricity to operate pumps for irrigating a large portion of the Pecos River Valley, in New Mexico. It is estimated that about 15,000 HP. can be developed and the cost of pumping the water would be about $2 per acre. L. K. McGaffey and J. F. Hinkle, of Roswell, N. Mex., are interested.

CHELAN, WASH.—The Chelan Electric Co. a subsidiary of the Great Northern R. R. Co., is contemplating the construction of a large dam across the Chelan River gorge near Cape Horn, between Chelan and Chelan Falls on the Columbia River. About 80,000 HP. can be developed. Estimated cost, about $5,000,000. Electricity generated at the plant will be utilized to operate the electric lines of the Great Northern R. R., and will also be furnished to cities for lighting and to pump water for irrigation from Lake Chelan and the Columbia River. Location of dam has not yet been decided upon.

SAN FRANCISCO, CAL.—Bids were received as follows on Dec. 18 by James Knox Taylor, Supervising Arch., Treasury Dept., Washington, D. C., for the installation of a power plant in the custom house building here: D'Olier Engineering Co., 121 S. Eleventh St., Philadelphia, Pa., $79,305; Standard Engineering Co., San Francisco, $80,000; Peters-Eichler Heating Co., St. Louis, $77,610; Charles C. Moore & Co., 99 First St., San Francisco, $68,879.

GLENDALE, CAL.—GEORGE SEWARD, 240 Moore Ave., Glendale, has been awarded contract to erect a transformer station for the city.

BIG PINE, CAL.—The Buckeye Mining & Smelting Co. has awarded contract to the ALLIS-CHALMERS CO., Milwaukee, Wis., for hydroelectric apparatus for its plant at Big Pine. Equipment consists of a horizontal turbine directed to a 30-KW., 3-phase, 60-cycle, 2300-volt alternator and a 15-KW., 120-volt, motor-driven exciter set.

LOS ANGELES, CAL.—The City Council has adopted the resolution to issue $3,500,000 of bonds for the construction of a municipal electric plant in connection with the Owens River project. H. J. LeLande is City Clk.

PARK CITY, UTAH.—The City Council has granted the Park City Light, Heat & Power Co. a 25-year franchise for lighting the city. D. E. King is Supt.

SALT LAKE CITY, UTAH.—Plans are being considered by John S. Bransford, Mayor, for the construction of a municipal electric light plant. Estimated cost, $50,000. The plant will be located at or near Parley's Canyon reservoir, which will supply electricity for operating the pumps at the sewage plant at Seventh North and Eighth West Sts. to the intercepting sewer, and for lamps in the business district. It costs the city $60,000 per year to light the city under the present contract with the Utah Light & Ry. Co. It is estimated that it will cost the city about $15,000 for power to operate the sewage pumping plant.

ST. JOE, IDAHO.—Contracts will soon be awarded by the Chicago, Milwaukee & Puget Sound Ry. Co., H. P. Earling, Gen. Supt., Butte, Mont., it is reported, for the construction of two electric power plants in the Bitter Root Mountains to furnish electricity to operate the railroad over the Idaho division, between St. Joe and St. Regis, Mont., a distance of over 100 miles. The two plants will develop 30,000 HP. One will be located on the St. Joe River, at St. Joe, and the other on the Missoula River, about 40 miles below Missoula, Mont.

ELY, NEV.—See item under Buildings.

RICHFIELD, UTAH.—Joseph Jensen, Richfield, has been engaged as designing and constructing engineer for a big power project for the Balknap Co. Cost of first unit, $40,000.

FORT FRANCES, ONT.—Contracts have been awarded by the city for equipment for the municipal electric light system as follows: Arc lamps, to the CANADIAN WESTINGHOUSE CO., Traders Bank Bldg., Toronto, Ont.; meters, to the CANADIAN GENERAL ELECTRIC CO., King and Simcoe Sts., Toronto; and transformers, to the ALLIS-CHALMERS-BULLOCK CO., LTD., Traders Bank Bldg. Power for operating the system will be secured from the International Falls Power Co., which is installing an electric plant equipped with four 1,250-KW. units. W. E. Skinner, of Winnipeg, Man., is Consulting Engr.

VANCOUVER, B. C.—The British Columbia Electric Ry. Co. has appropriated $6,000,000 for improvements to its system. It is stated that work will commence at once on the construction of a 20,000-HP. auxiliary plant here.

GUANAJUATO, MEX.—The Guanajuato Electric & Power Co. has increased its capital stock from $6,000,000 to $12,000,000 for the construction of new plants and extension of transmission lines. The company plans to construct a new generating plant at Peruondero and another at Penjamo.

LLUVIA DE ORO (CHIHUAHUA), MEX.—The Lluvia de Oro Gold Mining Co. is making extensive improvements to its power plant. The ALLIS-CHALMERS CO., of Milwaukee, Wis., has been awarded contracts for one hydraulic turbine direct connected to a [illegible]0-KW., 60-cycle, 3-phase, 6600-volt generator, a 25-KW., 120-volt exciter, belted to generator and a 2-panel switchboard with necessary instruments, etc.

BRIDGES.

(* *denotes that this work is advertised in Engineering News.*)

NASHUA, N. H.—The City Council has appointed a committee to confer with the Board of Public Works in regard to the construction of a new bridge to replace Taylors Fall bridge.

*WOONSOCKET, R. I.—Bids for building a wooden bridge and concrete abutments, on a proposed street running easterly from River St., will be received by Raphael P. Daignault, Chn. Com. on Streets and Bridges, until 4 p. m., Dec. 31. Frank H. Mills is City Engr.

WOONSOCKET, R. I.—The City Council has passed a resolution providing for the construction of a highway bridge over Blackstone River from River St. to Cold Spring Park. Estimated cost, $4,800.

*RYE, N. Y.—Bids will be received by George L. Henderson, Village Clk, until 8 p. m., Dec. 29, for building a bridge, with abutments and retaining walls, filling in the roadway and building a macadam road on Highland Road, Rye. The bridge is to be built of 24-in. beams, with connecting arches of concrete.

ROME, N. Y.—The Dunseath Engineering Co., 114 Liberty St., and not the Dunseath Construction Co., as incorrectly stated last week, was one of the bidders for riveted steel highway bridge over Mohawk River at proposed extension of East Bloomfield St.

BUFFALO, N. Y.—The bids received by F. C. Stevens, Supt. Public Wks., Albany, for the construction of a highway bridge over the Erie Canal at Georgia St., Buffalo, were: Lupfer & Remick, 590 Ellicott Sq., Buffalo, $18,121; Henry Tosh & Son, Port Byron, N. Y., $19,992; Engineer's estimate, $17,268. Bids were also submitted by the Great Lakes Construction Co. and the Monarch Engineering Co., both of Buffalo, but as the required 10% deposits were not inclosed, both bids were declared informal.

NORTHUMBERLAND, PA.—In connection with the new classification railroad yards at Northumberland for the Pennsylvania R. R. Co., the preliminary work is now in progress for the construction of the two new concrete and stone bridges to be erected over the two branches of the Susquehanna River leading from Northumberland to the DY railroad yard at Sunbury. Alex. C. Shand is Ch. Engr.

BROWNSVILLE, PA.—Estimates are being secured for a new Pennsylvania R. R. bridge to span the Monongahela River near Brownsville. It will be a steel, double-tracked structure 800 ft. long, and will connect the West Brownsville junction of the Monongahela division with the Brownsville junction of the Pittsburg & Lake Erie R. R. The bridge will replace and be 50 ft. to the north of the present single-track structure. Estimated probable cost, about $700,000.

PHILADELPHIA, PA.—The Bureau of Surveys, George S. Webster, Ch. Engr., on Dec. 13 approved plans for the erection of two bridges. The first provides for the building of a steel girder bridge of one span over the Richmond branch of the Philadelphia & Reading Ry. at Wissahickon Ave. The city is to expend $7,500 and the railway company is to pay five-sixths of the cost. The other bridge is to be carried under the Fairhill branch of the Pennsylvania R. R. at Westmoreland St., at a cost of $22,000.

TRAFFIC, VA.—Bids are asked by the State Highway Commission, Richmond, until noon, Dec. 30, for the construction of a steel bridge over the Meherrin River near here, one span, 115 ft. 6 ins. P. St. J. Wilson is State Highway Comr.

BUCKINGHAM, VA.—We are officially advised that Austin Bros., Atlanta, Ga., were the lowest bidders on Dec. 11 for the construction of a steel bridge over Slate River in Buckingham County for the State Highway Commission. P. St. J. Wilson, Comr.

ASHEVILLE, N. C.—The Buncombe County Commissioners will probably award contract to C. B. Clark & Co., 10 East Lexington St., Baltimore, Md., at $62,530, for construction of the West Asheville bridge. Structure is to be of reinforced concrete, 930 ft. long, 30 ft. wide, with 5-ft. sidewalk, to carry single-track car line, with passing track in center.

ELBERTON, GA.—Elbert County contemplates the construction of a bridge across the Broad River.

McDAVID, FLA.—Escambia and Santa Rosa Counties will construct a steel bridge across the Escambia River at McDavid.

TAMPA, FLA.—The Hillsboro County Commissioners have awarded contract to the ROANOKE BRIDGE CO., Roanoke, Va., at $6,950 for constructing a steel bridge across the Hillsboro River.

VICKSBURG, MISS.—The Vicksburg, Shreveport & Pacific Ry. Co., D. D. Curran, Gen. Mgr., New Orleans, La., and other roads contemplate the construction of a viaduct over the Cherry St. railroad crossing.

NEW IBERIA, LA.—The New Iberia, St. Martin's & Northern R. R. Co., R. J. Lockwood, Ch. Engr., New Iberia, has awarded subcontract to JEWETT CONSTRUCTION CO., Springfield, Mo., to construct bridges and buildings on railroad being constructed from Port Barre, La., to New Iberia, distance of 48 miles.

YOUNGSTOWN, OHIO.—Plans have been completed and accepted by the Youngstown Sheet & Tube Co., Federal Bldg., for the building of a viaduct from the plant of the company in East Youngstown across the Mahoning River. J. A. Campbell is Pres.

ST. CLAIRSVILLE, OHIO.—Bids are asked until 1 p. m., Jan. 3, by E. E. Shepherd, County Audr., for flooring Boydville bridge.

MIAMISBURG, OHIO.—Revised plans for a girder bridge over the Cincinnati pike at a point south of Miamisburg have been submitted to Ed. A. Moritz, County Engr., by the Cleveland, Cincinnati, Chicago & St. Louis Ry. Co. The former plans were rejected. The present plans provide for a bridge of 118 ft. span.

CINCINNATI, OHIO.—An agreement was reached on Dec. 15 between the City Track Elevation Department and the Baltimore & Ohio Southwestern Ry. for the construction of a viaduct across Mill Creek and the Baltimore & Ohio and Cleveland, Cincinnati, Chicago & St. Louis railroad tracks at Ludlow Ave., near the Clifton Springs Distilling Co.'s plant, thereby eliminating this grade crossing. The viaduct will start at a point about 300 ft. south of the crossing and the structure will cross the tracks and Mill Creek and come down to the ground level near Knowlton's corner. The viaduct will be of reinforced concrete. Estimated cost, about $300,000.

Bids will be received by the Board of County Commissioners until noon, Jan. 14, for the following county work: Under specification No. 1,000, for building bridge over Bloody Run at Beech St., near Spring Grove Ave., Millcreek Township. Stanley Struble is Pres.

*MONROEVILLE, OHIO.—Bids are asked by the County Commissioners, Norwalk, until 10.30 a. m., Jan. 27, for furnishing and erecting a steel riveted truss bridge over Huron River at Monroeville, known as Main St. bridge. Length, 204 ft., consisting of two spans each 62 ft. and one span 80 ft.; roadway, 20 ft., with sidewalk on one side 4 feet wide. Fay E. Smith is County Audr.

NEW ALBANY, IND.—The Monon R. R. Co. is preparing to build a 60-ft. steel span over Eighth St. and extensive fills across the low land from each end of the bridge.

RICHMOND, IND.—Bids are asked by the Wayne County Commissioners until 11 a. m., Dec. 27, for the construction of grade and fill at Armentrout bridge. Demas S. Coe is County Audr.

STREATOR, ILL.—The City Council has approved general plans of the proposed new bridge across the Vermillion River at Bridge St., prepared by Ralph Modjeska, Consulting Engr., Monadnock Bldg., Chicago, Ill. Estimated cost, about $40,000.

GRAND ISLAND, NEB.—Bids are asked until noon, Jan. 12, by the Board of Supervisors for construction and repair of all steel, wooden, pile and truss bridges for one year from March 28. G. H. Poell is County Clk.

LITTLE ROCK, ARK.—The city will construct a concrete bridge over Swaggerty Branch on High St. The sum of $5,000 has been appropriated. E. A. Kingsley is City Engr.

DURANT, OKLA.—The Missouri, Oklahoma & Gulf R. R. Co. has let contract, it is reported, for steel bridge over the Red River at Carpenters Bluff to the WISCONSIN BRIDGE & IRON CO., of Milwaukee, Wis. It will be a heavy structure 1,100 ft. long.

SPOKANE, WASH.—The city has awarded to F. T. CROWE & CO. contract for steel to be used in the new Monroe St. bridge at $9,950, the city to use any part or all of the steel in the contract on the basis of the cost per lb. Two carloads of the steel are to be delivered by Jan. 15, 1910, and the remainder not later than Feb. 15. The steel consists of iron rods to be used in reinforcing the concrete.

TACOMA, WASH.—Bids are about to be asked by H. J. McGregor, Comr. Pub. Wks., for a steel and concrete bridge over Puyallup Ave. about 600 ft. long. W. C. Raleigh is City Engr.

CHELAN, WASH.—Bids will be received by John Godfrey, County Audr., until Jan. 3 for constructing a bridge across the Chelan River. Estimated cost, about $13,400. Bowerman & McCloy, of Seattle, are Engrs.

SEATTLE, WASH.—The lowest bid opened by the Board of Public Works for constructing the Salmon Bay drawbridge has been submitted by the International Contract Co., 738 New York Blk., at $16,005.

FORT LAWTON (Seattle post-office), WASH.—Bids are asked by the Constructing Quartermaster, Arcade Annex, Seattle, until 11 a. m., Dec. 29, for the construction of a timber bridge here.

ALBANY, ORE.—Linn and Marion Counties will probably erect a steel bridge over the Santiam River next year. Estimated cost, about $19,000.

STOCKTON, CAL.—Bids are asked until Jan. 3 by the Board of Supervisors of San Joaquin County for two bridges, one a 2-span, pony truss of 75 ft. each, and one a 4-span pony truss, each 70 ft., foundation to be of concrete. Estimated cost, $16,000. F. E. Quail is County Engr.

ARTHABASKA, QUE.—The County Council has let contract for constructing the steel bridge on Becancour River, bids opened on Dec. 9, to JOSEPH GOSSELIN, of Levis, at $16,000. L. Lavergne is Secy.

TORONTO, ONT.—Contract will probably be let in the spring for the Queen St. high level bridge. C. H. Rust is City Engr.

*WINNIPEG, MAN.—Plans and specifications are on file at the office of Engineering News, New York, for removing the present superstructure and furnishing and erecting new superstructure and floor complete for Louise bridge across the Red River. Bids are asked by the Board of Control until Jan. 18. M. Peterson is Secy.

Bids are asked until 11 a. m., Dec. 30, by the Board of Control for labor and materials necessary for additions to piers of Louise Bridge, across the Red River.

BUILDINGS.

PORTLAND, ME.—Bids are asked until 2 p. m., Jan. 3, by the City Hall Commission for plumbing and electrical work in the new City Hall building at Portland. Carrere & Hastings, 225 Fifth Ave., New York, are Archs.

CAMBRIDGE, MASS.—The Trustees of the Andover Theological School at Harvard have decided that the proposed building operations, for which plans are under way, will be confined to one large building rather than extended to a group of smaller structures, as was at one time suggested. In this building there will be classrooms, a library room, an administrative room, and a room reserved especially for social purposes. According to the present intention, there will be two approaches and two front-views. One of these will be on Francis Ave., which is to be extended to afford an approach and exit for the school, and the other will be on the field between the proposed building and the present building of the Harvard Divinity School. Allen & Collens, 1170 Broadway, New York, and 6 Beacon St., Boston, Archs., have the plans in charge. In the latter part of January the completed plans will be submitted to the Trustees of the school for their final approval. In case this is granted, the actual work of construction will be started within a short time, and the construction pushed as rapidly as possible. As yet the authorities have not decided from what material the building will be made, but it is possible granit will be used.

BOSTON, MASS.—It is stated that drawings are nearly completed for the educational building to be erected on land adjoining the Brimmer School on Common and Warrenton Sts. and to be jointly used by the Boston School Committee, Boston Schoolhouse Commissioners and the High School of Commerce. The building will be in three sections. The School Board is to have all its departments under one roof, and there will be a public hearing room. The Schoolhouse Commissioners will have their apartments in another section of the building and also will have a hearing room. In the part of the building to be occupied by the High School of Commerce there will be 32 classrooms, head-master's office, teachers' rooms, a gymnasium and an assembly hall to seat from 800 to 1,000 people. There will be several laboratories, a library, a room for a commercial museum, several lecture rooms and departmental rooms. The flat roof of the building will be used as a playground for the boys of that school. It is probable that work on the building will be started about April 1.

*PAWTUCKET, R. I.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Jan. 25, for extension, etc., to the U. S. post-office at Pawtucket.

NEW HAVEN, CONN.—James Knox Taylor, Superv.' Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the construction of an extension to the post-office building at New Haven to CONROY BROS., 217 West 125th St., New York, at $42,375.

BRIDGEPORT, CONN.—Pyramid Temple, Nobles of the Mystic Shrine, of Bridgeport, is preparing to erect in Bridgeport a temple for its own occupancy. Officers have been elected as follows: William E. Burnham, Pres.; Henry Setzer, Vice-Pres.; Philip L. Holzer, Treas.; Frank Slosson, Secy. The building will cost between $80,000 and $90,000.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. of School Bldgs., Dept. of Education, until 4 p. m., Jan. 3, (1) for fireproof stairways, etc., at Public Schools Nos. 3, 45, 90 and 111, Boro. of Brooklyn; (2) for furnishing and erecting one portable school-house on the premises of Public School No. 14, Eastern Boulevard, Throggs Neck, Boro. of the Bronx; (3) for glass to be furnished to various schools in the Borough of Manhattan.

Plans have been filed for a 6-story apartment house, with a frontage of 151.5 ft. and a depth of 90 ft., to contain 53 suites of rooms and to cost $210,000, for H. T. Bulman at the southwest corner of Broadway and 163d St. Schwartz & Gross, 347 Fifth Ave., are Archs.

An apartment house is to be built by Isaac Meyer & Son, 100 West 119th St., at the southwest corner of Broadway and 113th St., to cost approximately $1,000,000. The structure will be of the fireproof type, with a facade of light-brick, terra cotta and limestone. Construction probably will begin in May.

NEW YORK, N. Y.—We are officially advised that Tucker, Speyers & Co., 437 Fifth Ave., will reconstruct a 4-story brick store and loft building, 57 × 90 ft., at 1845-1847 Broadway, to cost in the neighborhood of $100,000. Shire & Kaufman are Archs., 110 East 23d St.

The Fourth National Bank, 14 Nassau St., has formed plans for the construction of a building, to cover the entire frontage in the east side of Nassau St., between Pine and Cedar Sts. The directors are Cornelius N. Bliss, Robert W. Stuart, Richard T. Wilson, William S. Opdyke, Eugene Delano, T. Frank Manville and Thomas H. McKittrick.

We are officially informed that W. J. TAYLOR CO., 5 East 42d St., has the general contract for the 12-story fireproof apartment house to be erected at the southeast corner of Park Ave. and 76th St., for the 829 Park Avenue Co. W. G. MAHER, 1133 Broadway, has the carpenter contract. Pickering & Walker, 103 Park Ave., are Archs.; R. P. Bolton, 527 Fifth Avenue, is Engr. Estimated cost, $600,000.

Plans have been filed for an 8-story loft and store building, to be built from designs by Howells & Stokes, Archs., 100 William St., at the southwest corner of Lafayette and Walker Sts., for Helen H. Jenkins. It will have a frontage of 87 ft. in Lafayette St. and 24.9 ft. in Walker St. It is to cost $60,000.

NEW YORK, N. Y.—We are officially advised that the JAMES STEWART CO., 30 Church St., has the general contract to construct two fireproof office buildings to be erected at Lexington Ave., 46th, 47th and 48th Sts., for the Merchants' & Manufacturers' Exchange, of 949 Broadway. The two structures will contain twelve stories each, having exterior materials of brick and limestone and terra-cotta. The plans are being prepared by Grand Central Station Architects, 314 Madison Ave., and the cost will be about $4,000,000. Balcom & Darrows, 314 Madison Ave., are the Steel Engrs.

Plans have also been filed for a 6-story warehouse to be erected at 818 and 820 Greenwich St., from designs by John Wooley, for the Neper Construction Co., Harry M. Perelman, Pres. It is to cost $50,000.

Henry Gutman will build a 5-story garage, 50 × 85 ft., on 167th St., west of Amsterdam Ave., to cost $65,000. The designs are by H. L. Young.

NEW YORK, N. Y.—Bids were received as follows by J. W. Stevenson, Comr. of Bridges, on Dec. 20, for the completion of the substructure, the erection of the superstructure and the installation of plant, exclusive of interior finish, of the Municipal Building, at the Manhattan terminal of Brooklyn Bridge. (a) For furnishing all the work, labor, materials, tools, plant and appliances for all work and construction shown and specified, using hollow tile arches for the floors above the street level and for roofs: (b) for furnishing all the work, labor, materials, tools, plant and appliances for all work and construction shown and specified, substituting for the hollow tile arches of floors above the street level and for roofs, reinforced concrete slabs: Thompson-Starrett Co., 51 Wall St., (a) $5,895,000, (b) $5,895,000; James Stewart & Co., 30 Church St., (a) $6,495,000, (b) $6,475,000; George A. Fuller Co., Fuller Bldg., (a) $5,999,000, (b) $5,983,000; Richard E. Heningham, 1 Madison Ave., (a) $6,244,980, (b) $6,211,980; P. J. Carlin Construction Co., 16 East 23d St., (a) $6,285,585, (b) $6,266,000; John Gill & Sons, 12 West 31st St., (a) $6,781,980, (b) $6,697,500; Thomas Dwyer, (a) $6,160,000, (b) $6,100,000. An injunction to prevent contracts being granted on the municipal building by the Bridge Commissioner was served by William J. Schieffelin, Pres. of the Citizens' Union. McKim, Mead & White, 160 Fifth Ave., are Archs.

NEW YORK, N. Y.—The following bids were received on Dec. 17 by Nicholas J. Hayes, Fire Comr., for furnishing all the labor and materials required for the erection and completion of a building for engine company and hook and ladder company to be located on the east side of East 14th St., Boro. of Brooklyn: John F. Walsh Construction Co., 136 Charlton St., New York, $43,546; Rufus H. Brown, 1357 Rogers Ave., Brooklyn, $52,000; Morningside Construction Co., $49,000; Wm. Lendin, $47,997; Wm. J. Moran, $49,060; J. M. Knopp, $51,089; Westchester Eng. Co., $53,610; Geo. Hilderbrand, 38 Park Row, New York, $47,800; Dan'l J. Ryan, $53,980; Chas. H. Peckworth, 415 Hudson St., New York, $97,769; A. & W. Gray, $49,900; Conroy Bros., $47,970; Geo. F. Driscoll, 391 Fulton St., Brooklyn, $46,700.

NEW YORK, N. Y.—We are officially advised that plans are being drawn by Louis Charles Maurer, 1493 Broadway, Arch., for a 12-story store and loft building to be erected on plot 66 × 90 ft., at 137-143 West 25th St. It will have steel skeleton construction, reinforced-concrete arches, maple floors, three high-speed elevators, facade of white pressed brick and glazed terra cotta. The building will rise 150 ft. above the curb level. The estimated cost is $185,000. The Theodore Starrett Co. is the owner. Contracts will be let after Dec. 27.

NEW YORK, N. Y.—Bids were received as follows by C. B. J. Snyder, Supt. of School Bldgs., Dept. of Education, on Dec. 20, for general construction, etc., items (a) and (b) of addition to and alterations in Erasmus Hall High School, on the easterly side of Flatbush Ave., about 205 ft. north of Grant St., Boro. of Brooklyn: Charles H. Peckworth, 415 Hudson St., New York, (a) $412,931, (b) $281,682; John F. Walsh, 1 Madison Ave., New York, (a) $417,950, (b) $287,950; Peter Cleary, 115 Marion St., Brooklyn, (a) $403,456, (b) $275,000; Thomas McKeown, Inc., 103 Park Ave., New York City, (a) $423,000, (b) $289,700; W. J. Moran, Inc., (b) $285,278; James MacArthur, 22 Ormond Pl., Brooklyn, (a) $422,200, (b) $287,747; R. E. Heningham, 1 Madison Ave., New York, (a) $398,500, (b) $269,465; George F. Driscoll, 548 Union St., Brooklyn, (a) $395,700, (b) $267,700; H. C. Stowe Construction Co., 221 Greenpoint Ave., Brooklyn, (a) $391,300, (b) $268,700; John Kennedy & Co., 103 Park Row, New York, (a) $436,398, (b) $296,983; George Hilderbrand, 38 Park Row, New York, (a) $421,844, (b) $295,540; P. J. Brennan & Son, 624 Madison Ave., New York, (a) $432,000, (b) $289,000.

Bids were received as follows at the same time for the general construction, etc., of new Public School No. 44 on the southwest corner of Prospect Ave. and 176th St., Boro. of the Bronx: George Hildebrand, 38 Park Row, $247,700; Patrick Sullivan, 230 Grand St., $264,250; George F. Driscoll, 391 Fulton St., Brooklyn, $249,700; H. C. Stowe Construction Co., 221 Greenpoint Ave., Brooklyn, $236,300; R. E. Heningham, 1 Madison Ave., $249,980; Bottsford-Dickinson Co., 1170 Broadway, $235,841; Thomas J. Buckley Construction Co., 103 Park Ave., $272,800; P. J. Brennan & Son, 624 Madison Ave., $259,000; Thomas McKeown, Inc., 103 Park Ave., $247,700; Calumet Construction Co., 15 East 59th St., $238,643; O'Connell & Hanna, 271 West 125th St., $254,900; J. F. Walsh Construction Co., 136 Charlton St., $256,685; Charles H. Peckworth, 415 Hudson St., $256,976; John Kennedy & Co., 103 Park Ave., $236,900.

TROY, N. Y.—Raymond M. Booth, of Troy, N. Y., was the lowest bidder for the work of constructing a new central school on Seventh Ave., Troy, his bid being $285,000 for New England brick, or $281,000 for artificial stone.

HORNELL, N. Y.—A 4-story block is to be built on Broad St. in the spring, according to present plans of Father F. J. Haughten of St. Ann's Roman Catholic Church. Father Haughten owns the site and offers to give it to the parish. The structure will cost about $40,000. The fraternal orders and societies will have rooms there.

Dr. George Conderman is contemplating the erection of a 4-story office building on Broad St. next to the Miller Block.

PRINCETON, N. J.—Frank Miles Day & Bro., Archs., 925 Chestnut St., Philadelphia, Pa., are planning a 3-story stone dormitory to form the southwest wing of the James Madison Hall at Princeton University. It will measure 210 × 35 ft., and will cost $100,000.

PHILADELPHIA, PA.—Bids were received on Dec. 14 by W. Hunter, Ch. Engr. of the Philadelphia & Reading Ry. Co. for building passenger stations at Tioga and Nicetown, and the erection of a storehouse, engine house and water supply at Green St., in connection with the company's new elevated system. Ten bids were received from contractors for the Nicetown station, as follows: Fred. A. Havens & Co., Perry Bldg., $40,301; E. L. Seeds, $40,700; George A. Glenn & Co., $42,172; Charles McCaul Co., Tenth and Sansom Sts., $44,889; Armstrong & Latta, $45,142; A. Whitehead, $45,580; H. B. Deal & Co., $45,816; M. P. Wells, $47,000; Thomas E. Trafford, $48,529; Mitchell Bros., $55,763.

For the new station at Tioga the following eight bids were received: E. L. Seeds, $54,200; M. P. Wells, $56,000; George A. Glenn & Co., $56,725; Daniel McCarty, $57,200; Armstrong & Latta, $58,279; H. B. Deal Co., $60,307; A. Whitehead, $61,200; Mitchell Bros., $68,974. No awards have been made, as the company announced that it would require some time to schedule the bids before determining the names of the successful bidders.

E. Allen Wilson, Arch., has been commissioned by Wynne-Prince Co., Seventh and Walnut Sts., to prepare plans for 2½ and 3-story dwellings, to be erected on the tract of ground recently purchased by Clarence P. Wynne at Wynnefield, and to number about 40. These houses are to cost on an average of $5,000 each, and are to be modeled after the plans of those recently constructed at Milbourne and other suburban sections of Philadelphia.

MONT ALTO, PA.—Bids will be received by Samuel G. Dixon, Comr. of Health of the Commonwealth of Pennsylvania at his office, in Harrisburg, until 5 p. m., Jan. 3, for the construction of the following buildings for the Pennsylvania State South Mountain Sanatorium, near Mont Alto, Franklin County, Pa., in accordance with the plans and specifications on file at the office of the commissioner, in Harrisburg: 49 cottages; 11 pavilions; 8 toilet houses; extension to infirmary porch; nurses' and physicians' buildings; children's building; alterations and additions to dining building.

PITTSBURG, PA.—Plans for the armory of the Eighteenth Regiment have been approved by the State Armory Committee of the National Guard at its recent meeting at Philadelphia, Col. A. J. Logan, commanding the Eighteenth Regiment, was instructed to have work on the new structure, which will be located at Thackery and Baird Sts., Schenley Farms, started at once. This armory will be a brick, stone and concrete structure, three stories high, 60 × 195 ft., and fireproof, containing everything for a complete armory except the big drill hall, which will be added when a later appropriation is made to cover the cost of an addition. The plans for the armory have been made by the W. G. Wilkins Co., Archs., Westinghouse Bldg., Pittsburg, and it is stated that work will be begun on the structure as soon as the structural iron can be delivered on the ground.

BRYN MAWR, PA.—The Bryn Mawr Y. M. C. A. will begin the erection of a $100,000 home shortly after the first of the year. According to the architect's estimate, the building itself will cost $30,000, while the interior fittings, including a swimming pool and the land, will bring the total to $100,000. The building will be a 3-story structure, of Pennsylvania granite, with terra cotta trimmings. It will be fitted out with a gymnasium, an auditorium with a seating capacity of 400 and contains all the other modern equipment which such a building should have. The present quarters of the association, situated on Lancaster Pike, near Bryn Mawr, will be torn down and the new building erected on the same site.

DOVER, DEL.—Bids are asked by Alexander Corbit, Secy. Bldg. Comm., State House, Dover, until noon, Jan. 17, for constructing a brick addition, 93 × 77.8 ft., and a tower to the State House at Dover. We are officially advised that construction will be of brick, and that the addition will be two stories high. Edward L. Tilton, 32 Broadway, New York, is Arch.

CUMBERLAND, MD.—Press reports state that F. E. Blaser, Supt. of the Cumberland Division of the Baltimore & Ohio R. R. Co. has confirmed the report that a station will be erected in Cumberland. It will cost $100,000 and work will begin soon.

MANCHESTER, VA.—The Virginia Railway & Power Co., of Richmond, is planning to expend $600,000 in improvements which will include the erection of a terminal passenger station, car house and repair shops at Manchester. Charles C. Johnson is Pur. Agent; C. B. Buchanan is Gen. Supt. Ry., both of Richmond, Va.

*LYNCHBURG, VA.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Feb. 10, for extension, etc., to the U. S. post-office at Lynchburg.

COLUMBUS, OHIO.—Bids are asked until 10 a. m., Jan. 8, by Capt. H. J. Hirsch, Constr. Q. M., until 10 a. m., Jan. 8, for construction of extensions to administration building and Mess Hall No. 51 at this post, including plumbing, heating, electric light, wiring and fixtures.

The Commissioners of Franklin County have approved the plans for a 3-story hospital for tuberculosis. The contract will be awarded in the spring.

The Ohio Electric Ry. Co. announces that it will remove the old buildings on Rich St., between Pearl and Third Sts. for the erection of an interurban station. The construction will start in the spring. Dana Stevens, Cincinnati, Ohio, is Gen. Mgr.

CLEVELAND, OHIO.—The Central Y. M. C. A. has sold the building and the land it occupies at East Ninth St. and Prospect Ave., S. E., for $500,000. The building will be torn down to make room for the erection of a $2,000,000 hotel. The purchase was made by H. H. Johnson, of the law firm of M. B. & H. H. Johnson, American Trust Bldg., for Eastern and Cleveland capitalists.

The Baker Co., 1216 Huron Road, will break ground soon for a garage and sales building on Euclid Ave. The building will be located at Euclid Ave. and East 71st S.t, and will cost $100,000. It will be constructed of brick and stone, and fireproof, and will be 160 × 200 ft. There will be two stories on the Euclid Ave. front with one story in the rear.

Plans for the proposed city hospital group have been submitted by Myron B. Vorce, Perry-Payne Bldg., Arch., to the Board of Control. Eighteen buildings shown by the group plan will cost $1,125,000.

CLEVELAND, OHIO.—Announcement has been made by the May Co., that it had acquired a long lease on the Adolph Meyer Estate, facing on Ontario St., between the present store of the May Co. and the building occupied by the W. P. Southworth Co., and that work is to proceed at once with the erection of a 10-story fireproof structure to conform in general architecture with the present 6-story building already occupied there. The ground acquired has a frontage on Ontario St. of 45 ft., and looks west into Champlain Ave., S. E. It extends back 130 ft. to an alley. Work on the building is to begin this week, the foundations being put in while the general plans for the structure are being prepared. The building is to contain fireproofed elevator shafts and fireproofed walls, floors and stairways. Contracts will be let as soon as plans are ready for figuring. It is expected to have the four or five lower stories of the building ready for occupancy by June 1 of next year. N. L. Dauby is Pres.

DEFIANCE, OHIO.—Manfred M. Stophlet, Arch., Nasby Bldg., Toledo, Ohio, is preparing plans and specifications for the Masonic Temple to be erected at Defiance. The structure is to cost from $40,000 to $50,000 and will be owned by all Masonic lodges up to and including the Templar degree. In accordance with the contract, Mr. Stophlet will superintend the construction. Ground will be broken early in the spring.

YOUNGSTOWN, OHIO.—The Apartment House Co. has purchased the Emil Schultz property in East Federal St., near Watt St. The company will erect a 6-story fireproof warehouse in the rear of the property, which has 79 ft. on the P. & L. E. R. R. The price paid was about $90,000. The company will soon erect a modern 6-story apartment house at Woodbine and Elm Sts. with 36 sets of apartments. The capital of the company has been increased from $75,000 to $150,000.

TOLEDO, OHIO.—Bids were received as follows on Dec. 20, by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the installation of a heating and ventilating plant in the post-office at Toledo, Ohio: John W. Danforth Co., Washington, $33,100; Huffman-Conklin Co., Columbus, Ohio, $33,874; S. Faith & Co., $32,980; Fitzpatrick & Hoepner, Columbus, Ohio, $30,890; Thomas Kewley & Son, Toledo, Ohio, $32,000. Also for a conduit and wiring system in the same post-office: R. F. Fletcher, Columbus, Ohio, $9,610; Herman Andrae Electric Co., Milwaukee, Wis., $8,350; McNerney Electric Co., Columbus, Ohio, $9,349; Wentworth-Dean Electric Co., Lima, Ohio, $14,000; McMaster Electric Construction Co., Columbus, $9,535; Sanborn Marsh Electric Co., Indianapolis, Ind., $9,558; Edwin C. Lewis, Boston, Mass., $8,631; R. H. Winter Electric Co., Toledo, Ohio, $11,886; R. S. Strang, Philadelphia, $9,767; Unity Electric Co., St. Paul, Minn., $10,950.

GOSHEN, IND.—The Northern Indiana Ry. Co. has taken an option on a site located at Jefferson and Main Sts., Goshen, on which to build an interurban depot. Plans are being prepared for a passenger and freight station with offices in the second story. The company has been succeeded by the Chicago, South Bend & Northern Indiana Ry. Co., Samuel T. Murdock, La Fayette, Ind., Gen. Mgr.

DELPHI, IND.—The Trustees of the local lodge of Masons have been instructed to secure plans and let a contract for the construction of a business building and lodge hall.

INDIANAPOLIS, IND.—A family hotel is planned to be erected on North Meridian St. by Rubush & Hunter, Archs., American Central Life Bldg. The plans have been approved by the Building Inspector and a permit issued for a building to cost $175,000. The building will be of English design and will be a 3-story fireproof structure of brick, trimmed with stone. The outside dimensions will be about 180 × 180 ft., but the building will be of U shape, with a 60-ft. court, or lawn, between the two wings of the building. The company has a frontage of 195 ft. running back 285 ft. on the east side of Meridian St., just north of 13th St. There will be about ten apartments on each floor of from four to eight rooms each. These apartment will be built without kitchens or dining rooms, but provision will be made for a dining room in the basement. It is planned to erect the building 90 ft. back from the property line and to provide a lawn. Work on the building, it is stated, is to start at once.

CHICAGO, ILL.—Mrs. Charles Netcher, who owns the Boston Store, will add, on State St., a 13-story annex, which is to be established at a cost of approximately $1,500,000. The section will fill the space on State St., between the Champlain Building at State and Madison Sts., and the alley to the north, which properly is Calhoun Pl. The frontage will be 91½ ft. on State St., extending westward 118 ft. This addition will be projected five stories higher than the recently built Madison St. and Dearborn St. sections, of which it is to be a part, making it of 13 stories, or, with its cornices, 195 ft. in height. The contracts call also for an addition of 94 × 140 ft. five stories above the rear portions of the Madison St. sections, which have strength in the columns and foundations for an 18-story building. With the new additions the Boston Store will be 326 × 163 ft., comprising an area of 52,350 sq. ft. This gives a total of 615,000 sq. ft., or about 15 acres of floor space. Holabird & Roche, Monadnock Block, are Archs., and the contracts for its erection have been let to JOHN GRIFFITHS & SONS, 135 Adams St.

A department store building is to be erected on the west side of State St., north of the alley between Washington and Madison Sts. It is to be 16 stories high and will be devoted exclusively to a single retail enterprise. An investment, estimated at $1,500,000, will be represented in the structure. A lease has been taken by Edward Hillman on the property extending from 112 to 116 State St. The property is occupied now by a part of the Hillman store, the building being a 6-story and basement structure. Charles W. Partridge is Pres. of Hillman's.

DAVENPORT, IOWA.—Bids were received as follows on Dec. 15 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office at Davenport, Iowa: Hazelton & Walin, Chicago, $67,500; Harman Bros., Williamsport, Pa., $59,268; General Construction Co., Hathaway Bldg., Milwaukee, Wis., $71,510. Time, Jan. 1, 1911.

ST. PAUL, MINN.—The contract for the general construction of the St. Adelbert (Polish Catholic) Church on Sherburne Ave. has been let to OLAF SWENSON, 945 Clark St., city. Boyer, Taylor & Tewes are Archs. Cost, $50,000.

EMPORIA, KAN.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Jan. 14, for extension, remodeling, etc. (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Emporia.

LEAD, S. DAK.—Bids are asked until 3 p. m., Feb. 14, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for construction (complete) of the U. S. post-office at Lead.

ST. LOUIS, MO.—The Princess Realty Co. will erect an apartment house and will expend $150,000 in its construction and finishing. It will be located at the northwest corner of West Pine Boulevard and Spring Ave. The operation is being handled by the Kinsella Realty Co. John F. Dockery is Pres. of the Princess corporation and Thomas Kinsella Vice-Pres. The plans and specifications for the building have been prepared and an application for permission to begin construction will be made soon. The building will be three stories high and will occupy a lot 98 × 213 ft. The lot is valued at $45,000. The suites will be arranged in one, two and three rooms, each with a bath attached and a shower bath to every three suites.

EL PASO, TEX.—Plans for an 8-story structure which is to be erected by the American National Bank at the corner of

San Antonio and Oregon Sts., are being prepared by Frost & Frost, Archs., P. O. Box 27, El Paso. The building is to cost $100,000.

OKLAHOMA CITY, OKLA.—The following bids were received on Dec. 9 by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for constructing U. S. post-office in Oklahoma City: Globe Construction Co., Chemical Bldg., St. Louis, $263,635; Northern Construction Co., 421 Milwaukee St., Milwaukee, Wis., $289,700; M. J. Gill Construction Co., Ardmore, Okla., $218,500; Tom Lovell, San Antonio, Tex., $245,217; N. S. Sherman, Oklahoma City, $227,777; Dieter & Wenzel, Wichita, Kan., $249,968.

CHICKASHA, OKLA.—The State Board of Affairs at Guthrie, Okla., on Dec. 9 rejected the three bids received for the erection of the building for the Girls' industrial school, for the reason that all bids exceeded the appropriation. The bids were as follows: Western Construction Co., of Chickasha, $117,000; Texas Building Co., of Fort Worth, Tex., $133,000; A. Betts, of Topeka, Kan., $118,000.

*FORT SILL, OKLA.—Bids are asked until 10 a. m., Jan. 15, by Capt, David L. Stone, Constr. Q. M., Fort Sill, for the construction, plumbing and wiring of the following buildings: One guardhouse, one quartermaster's workshop, one quartermaster's storehouse, one stable guard and shop building.

DENVER, COLO.—Plans for a $50,000 grade school building are now being considered by the School Board. The building will be located at 14th Ave. and Colorado Boulevard, east of the present Clayton school.

DENVER, COLO.—Arrangements have been completed for constructing the 12-story office building, to be erected on the present site of the Barnett Furnishing store, at 16th and Champa Sts., and work on the building will be begun early nevt year. The building will cost in the neighborhood of $800,000. The Barnett store has leased the ground floor of the new building for 15 years, and the remainder of the structure will be leased for general office purposes. The building will be of steel and concrete, and fireproof, in accordance with the requirements of the recently enacted building ordinance.

FORT BAYARD, N. MEX.—The Governor will advertise for bids soon for improvements to be made to the sanitorium at Fort Bayard, N. Mex. Amount to be expended, $275,000. New officers' quarters, pumping plant, ice manufacturing plant, electric lighting system for the entire sanitorium will be built.

SEATTLE, WASH.—Plans for the 5-story reinforced concrete warehouse to be built for the Provident Building Co. have been completed by Saunders & Lewton and are ready for figures by contractors. The building will be 72 x 150 ft., located on First Ave. South, near Weller St., and will cost $75,000.

SPOKANE, WASH.—Plans for a fireproof office building to be constructed at a cost of $200,000 are being drawn for the Washington Safe Deposit & Trust Co., of which the McCrea & Merryweather Co. are managers. Details in the plans have not been decided, but the building will occupy the site on the north side of Sprague Ave., between Stevens and Washington Sts.

PORTLAND, ORE.—We are officially advised that John B. Yeon contemplates erecting a 15-story building at the corner of Fifth and Alder Sts. Estimated cost, $500,000. Reid Bros., Claus Spreckles Bldg., San Francisco, Cal., are Archs. Contracts will be let about Dec. 27.

POMONA, CAL.—Plans have been prepared by Norman F. Marsh, Arch., Broadwell Central Bldg., Los Angeles, Cal., for the proposed science hall of the Polytechnic High School. The structure will be 150 × 80 ft., two stories high, and the lines will follow the classical treatment of the present high school building. The structure will be built of brick and plaster and will contain eight recitation rooms, a superintendent's office, physical and chemical laboratory, library, study and lecture rooms, art and domestic science departments, and an amphitheater. The cost will be $40,000.

OAKLAND, CAL.—According to the San Francisco "Call," E. E. Calvin, Gen. Mgr. of the Southern Pacific Co., has confirmed the announcement that new plans have been made for the proposed $250,000 station at 16th St. Mr. Calvin has advised I. H. Clay, Pres. of the Chamber of Commerce, that the plans will be exhibited to the representatives of the chamber.

OAKLAND, CAL.—We are officially advised that the city has voted in favor of municipal improvements. Bonds for $1,150,000 will be issued for a new city hall and hall of justice. There will be an architectural competition for these buildings in about two months.

LOS ANGELES, CAL.—Hudson & Munsell, Archs., Stimson Bldg., have prepared plans for a residence to cost $60,000 to be erected on the corner of West Adams St. and Fifth Ave., for Secondo Guasti. The building will be a 2-story brick structure, with 20 rooms.

I. W. Hellman is having plans prepared by Morgan & Walls, Archs., 232 North Main St., for the erection of an 8-story reinforced concrete office building, to cost about $1,000,000, on the property owned by him back of the Farmers & Merchants' Bank on West Fourth St., and having a second frontage on South Spring St., south of the Union Trust Bldg. The lot is in the shape of an L, and has a frontage of 80 ft. on Fourth St. by 150 ft. in depth. The Spring St. front has 40 ft. and is occupied by two stores. On the Fourth St. side, at 120-122-124, are four buildings of one story. These have been given notice to vacate, as the work of razing the buildings on the Fourth St. front will be begun on Jan. 1. It is proposed to build a 6-story structure on the Fourth St. side first and later to add two more stories, making eight, the structure to be continued on the Spring St. frontage. The alleyway between the Hellman Bldg. on Main and the Fourth St. building will be bridged by a covered way.

SAN BERNARDINO, CAL.—The Board of Supervisors of San Bernardino County, have purchased two city blocks. The County recently authorized an issue of $400,000 for the erection of a court-house.

SAN DIEGO, CAL.—James M. Black and others, of San Diego, Cal., has purchased property at Third and Ash Sts., which will be occupied by buildings aggregating a cost of $45,000. The improvements will consist of a 4-story brick building, containing stores and flats, and 3-story building, to cost $20,000 and to contain apartments.

Henry Lord Gay, Arch., Keating Bldg., San Diego, Cal., has completed plans and let the general contract for the erection of a 5-story theater and office building at San Diego, for John Johnston, Jr., of Escondido, Cal. The structure will be 50 × 100 ft. GALLAGHER & BROWN, of San Diego, have the contract. Cost, $40,000, exclusive of elevators and electric wiring. The building is to have concrete foundations and basement, enameled brick front, gravel roof, maple floors, plate glass windows, pine trim, passenger and freight elevators.

SAN FRANCISCO, CAL.—At a recent meeting of the Board of Supervisors, the contract for fireproofing the San Francisco hospital was awarded to FOSTER & VOGT at $102,897. Bids for the general construction of the buildings were called for, the estimate being $350,000. The PACIFIC ROLLING MILL CO. secured the contract for putting in the steel frame of the jail at $70,660. The Board of Supervisors was asked to set aside $38,000 for the proposed park police station, $40,000 for the Ingleside police station and $110,000 for the Spring Valley school. The Finance Committee of the Board of Supervisors allowed these sums.

Maurice Rosenthal, 21 Battery St., has bought from the Maguire Co. a vacant lot in the south line of Bush St., 137.6 ft. east of Jones St., with a frontage of 55 ft. and a depth of 137.6 ft. Upon this lot Mr. Rosenthal will erect a 6-story apartment house that will cost from $75,000 to $100,000.

TUCSON, ARIZ.—W. J. Bliesner, Arch., of Phoenix, Ariz., is preparing preliminary plans for the proposed Scottish Rite Cathedral, to be erected at Tucson, Ariz. A sum of $85,000 has been voted for the building.

YUMA, ARIZ.—The contract for the erection of a court-house and jail at Yuma, has been awarded by the Board of Supervisors, to OLCESTER & WADEN, of Yuma, on their bid of $46,697. The portion to be erected at this time will be the center wing of a proposed building which will cost over $100,000. R. B. Young, Lankershim Bldg., Los Angeles, Cal., is Arch. The building will be constructed of reinforced concrete faced with old gold pressed brick. The jail will be equipped with cells and a corridor of the chrome steel.

ELY, NEV.—Plans are under way at Ely, for the erection of 30 cottages, stores and a hotel, at the Star Point Mine, of the Nevada Consolidated Mining Co. A transformer plant and a hoisting plant are under way. An electric haulage system will be installed, to connect with all underground workings, and economize handling of ore. Ground is also being cleared for a large smelter.

SALT LAKE CITY, UTAH.—The Eccles-Browning Co. will erect an 18-room brick and concrete market and storage building, to cost $50,000.

James H. Moyle will build a 2-story, 28-room brick and steel garage on South State St., to cost $50,000.

MONTREAL, QUE.—The directors of the Y. M. C. A. at a recent meeting concurred in the recommendation of the Building Committee to accept the Sun Life Insurance Co.'s offer of $250,000 for the Dominion Sq. property, according to the Montreal "Gazette." Following this decision, the directors decided to exercise their option on the Ogilvie property on Drummond St., which will be the site of the new home of the association when it turns over its present building to the Sun Life in May, 1911.

WATER-SUPPLY—IRRIGATION.

(* *denotes that this work is advertised in Engineering News.*)

PAWTUCKET, R. I.—The Commissioner of of Public Works has awarded to ALLEN & REED, INC., 178 Dorrance St., Providence, contract for furnishing 2,100 pieces of 6, 8, 10 and 12-in. c.-i. water pipe at $16,728; also for 18,000 ft. of 1, 1½ and 2-in. w.-i. tarred water pipe.

PROVIDENCE, R. I.—The Board of Contract and Supply has awarded contracts as follows: To the NASSAU SMELTING & REFINING WORKS, 623 W. 29th St., New York, for 40,000 lbs. of pig lead; to ALLEN & REED, INC., 178 Dorrance St., Providence, for 53,000 lbs. assorted AAA lead pipe; to FULLER IRON WORKS, Providence, 61 tons of special castings and service boxes and 70 tons of castings for sewers, at $3,869; to the ALLEN FIRE DEPARTMENT SUPPLY CO., Providence, taps and stops of various sizes.

The Board of Contract and Supply on Dec. 6 awarded contract for fire hydrants, valves and water gates to the COFFIN VALVE CO., Neponset, Mass., at $3,618.

LONG ISLAND CITY (L. I.), N. Y.—The following are the bids opened on Dec. 8 by J. H. O'Brien, Comr. Water Supply, Gas and Electricity, New York, for furnishing, delivering and laying water mains in Greenpoint and Thomson Aves., Hoffman Boulevard and Union Turnpike, First and Second Wards, Boro. Queens; Newman & Carey, Brooklyn, $205,806; Joseph Murphy & Son, Inc., New York, $215,409; Wilton Construction Co., 115 Elliot Ave., Williamsbridge, N. Y., $196,958; H. E. Fox, 80 East 125th St., New York, $197,098; Thomas F. Tuohey Co., Flushing, L. I., $196,419; D. Cuozzo, 21 Park Row, New York, $196,940; McAvoy & Grippo, Long Island City, $177,560; T. J. Gallagher, $216,503; Haggerty Construction Co., 215 W. 125th St., New York, $225,497; Brookyln Alcatraz Co., Brooklyn, $184,617; Pease Bros., Flushing, L. I., $188,427; J. C. Rodgers, Jr., 121 W. 125th St., New York, $218,147; Hanover Contracting Co., 215 West 125th St., New York; $190,562; Hicks, Johnson Co., Brooklyn, $187,958; James Kelly, Brooklyn, $203,749; H. J. Mullen, Jamaica, $211,413; Atlanta Contracting Co., 431 East 91st st, New York, $206,359; J. H. Holmes, 367 Fulton St., Brooklyn, $202,535; Long Island Contracting & Supply Co., Long Island City, $187,761.

NEW BRIGHTON (S. I.), N. Y.—The following bids were opened on Dec. 14 by J. H. O'Brien, Comr. Water Supply, Gas and Electricity, New York, for furnishing, delivering and laying water mains and appurtenances in Center, Court, Moore and Tysen Sts., Clark, Garretson, Huguenot, Rossville, Sea View and Stapleton Aves., Terrace Court, Fresh Kills and Woodrow Roads: Clinton Beckwith, of Herkimer, N. Y., $95,363; Joseph Johnson Sons, West Brighton, S. I., $107,565; I. H. Holmes, 367 Fulton St., Brooklyn, $104,630; D. Cuozzo & Co., 21 Park Row, New York, $88,846; J. Heaney, $106,753; Murphy Bros., Brooklyn, $86,648.

No bids were opened on Dec. 14 for Contract No. 6, for water mains in Westervelt, Beechwood, Bismarck and other streets, Richmond Borough, as the advertisement had been withdrawn before date of opening.

BROOKLYN, N. Y.—Bids will be received until Dec. 29, by Bird S. Coler, Boro. Pres., for furnishing material and reconstructing and repairing mechanical plants at Caissons No. 2, at Coney Island, and No. 4, at Sheepshead Bay, as follows: At Caisson No. 2, one 10-in. centrifugal pump and engine, two 150-HP. steam boilers, two steam feed water pumps for same, one feed water heater and one iron stack, with all piping, foundations and appurtenances; at Caisson No. 4, one 10-in. centrifugal pump and engine, with all piping, foundations and appurtenances, together with all necessary alterations.

NEW YORK, N. Y.—Bids are asked until 2 p. m., Dec. 24 (postponement from Dec. 3, 10 and 17), by J. H. O'Brien, Comr. Water Supply, Gas and Electricity, for furnishing, delivering and laying a trunk distribution main and appurtenances in Glenmore, Pennsylvania and Bushwick Aves., and in Madison St., Boro. Brooklyn.

NEW YORK, N. Y.—Bids were received as follows by the Board of Water Supply on Dec. 21, for Contract No. 9, for the construction of Kensico Dam, a high masonry dam across the valley of the Bronx River, and appurtenant works, including New Rye reservoir, New Rye Dike, Bronx-Rye tunnel, Bronx dike and Rye pipe line: George W. Rogers, 29 Broadway, $9,490,000; Rodgers & Haggerty, 41 Park Row, $7,953,000; J. F. Coogan Co., $9,600,000; American Pipe & Construction Co., 112 N. Broad St., Philadelphia, $8,349,000. J. Waldo Smith is Ch. Engr.

*NEW YORK, N. Y.—Bids are asked by the Board of Water Supply until 11 a. m., Jan. 11, for Contract No. 52, for the construction of portions of the White Plains Division of the Catskill Aqueduct. The work includes three tunnels on the hydraulic gradient aggregating 1.6 miles in length, one being 17 ft. high by 13½ ft. wide inside and two 17½ ft. high by 13¾ ft. wide inside; and about 2.8 miles of plain concrete conduit, known as cut-and-cover aqueduct 17½ ft. high by 18 ft. wide inside. The work is located in the towns of Mt. Pleasant and Greenburgh, Westchester County. T. Waldo Smith is Ch. Engr.

Bids were received as follows on Dec. 16 by the Board of Water Supply for Contract 53, for the construction of Grassy Sprain cut-and-cover, Platte Ave., siphon and portions of Ardsley cut-and-cover, aggregating about 24,400 ft. of plain concrete conduit, known as Aqueduct in open cut and on embankment, 17½ ft. high by 18 ft. wide inside, and about 138 ft. of aqueduct of special design, built of reinforced concrete: Elmore & Hamilton, Albany, N. Y., $1,485,150; David Peoples, Betz Bldg., Philadelphia, Pa., $1,580,880; Pittsburg Contracting Co., Diamond Bank Bldg., Pittsburg, Pa., $1,643,675; Foye-Root Co., 20 Broad St., N. Y., $1,743,355; Pennell, O'Hern & Co., Yonkers, N. Y., $1,996,885; F. V. Smith Contracting Co., 125th St. and Lexington Ave., N. Y., $1,526,055; Rodgers & Haggerty, 41 Park Row, N. Y., $1,593,020; Smith, Hannen & Hickey Co., St. Louis, Mo., $1,684,315; Patrick McGovern, 6 Beacon St., Boston, Mass., $1,798,471. T. Waldo Smith is Ch. Engr.

LITTLE FALLS, N. Y.—The Board of Public Works on Dec. 10 opened bids for construction of a water main in Loomis St., as follows: The Berigran Construction Co., $3,950; Patrick Kearney, $4,387. The Cooper-Snell Co. submitted a unit price bid of 75 cts. for each ft. of pipe, $4.50 for rock excavation, 70 cts. for earth excavation and 80 cts. for back fill.

NIAGARA FALLS, N. Y.—The following are the bids opened by the Board of Water Commissioners on Dec. 3 for a filtration system: Norwood Engineering Co., Florence, Mass., brick plant, $239,000, stone plant, $252,000; the Ozone Co., of Paris, France, through its local agents, $465,985; the Municipal Filtration Co., 1 Madison Ave., New York, the ozone system, $299,950, Gardaie system, $371,700.

PLATTSBURG, N. Y.—Bids are asked until 3 p. m., Dec. 27, by the Board of Public Works for the construction of a dam. W. B. Mooers is Mayor.

*EAST ORANGE, N. J.—The U. S. CAST IRON PIPE & FOUNDRY CO., 71 Broadway, New York, has secured contract for 310 tons of 6 and 8-in. pipe at $25.80 per ton and 50 tons specials at 2¼ cts. per lb. Total cost, $10,498. Bids were opened on Dec. 7.

PHILADELPHIA, PA.—See item under Buildings.

*PARKERSBURG, W. VA.—Bids are asked until 8 p. m., Jan. 6, by Frank Good, City Audr., for hydrants, stop valves, extension valve boxes and laying c.-i. water pipe. For details see advertisements in this issue.

WHEELING, W. VA.—The Glendale Water Co. has been incorporated with $25,000 capital by W. H. Koch and B. B. McMechen, both of Glendale, J. M. Schaub, J. E. Roberts, Moundsville, W. Va., and others.

WILMINGTON, N. C.—Bids will be received by the Water and Sewerage Commission, Charles W. Worth, Chn., until Jan. 12 for construction of brick power and filter house, machinery foundations, rearrangement of machinery, a radial brick stack, extension to filter plant, reinforced concrete sedimentation basin and concrete storage reservoir. Hazlehurst & Anderson, of Atlanta, Ga., and Wilmington, Del., are Engrs.

JONESBORO, N. C.—The Town Commissioners have authorized an issue of $15,000 of bonds for the construction of water-works.

MONTGOMERY, ALA.—The city is considering plans for the construction of a system whereby water from the Alabama River can be furnished to railroads and manufacturing plants for steaming purposes. Water will be forced through mains laid for this purpose and complete separate pumping plant, equipped with electric pumps, will be installed on the river's banks. It is also proposed to duplicate the present pumping plant of the Montgomery water-works, installing electric pumping plant at present station. The old steam pumping engines will be retained for use in emergency and electric equipment will do entire pumping of water for domestic and household uses. A. R. Gilchrist is City Engr.

NATCHEZ, MISS.—The SHEFFIELD CAST IRON, PIPE & FOUNDRY CO., of Sheffield, Ala., was awarded contract on Dec. 7 by the city for pipe, crosses, T's and sleeves to be used in repairing the water-works at about $6,000.

CHARLESTON, MISS.—See item under Light and Power Plants.

HAMMOND, LA.—The city will extend the water mains for four blocks.

WINCHESTER, TENN.—See item under Light and Power Plants.

LORAIN, OHIO.—The City Council has accepted the report of the Superintendent of Water-Works on extension of water-works intake, and additional pressure station for the Fourth Ward, estimated to cost about $60,000.

EUCLID, OHIO.—Bids will be received until Dec. 27 by the Village Council for laying water mains along Euclid Ave. for three miles.

CHICAGO, ILL.—Bids will be received until Dec. 31 by John J. Hanberg, Comr. Pub. Wks., for furnishing and installing in the 68th St. pumping station boiler room, three 350-HP. water tube boilers, including furnaces, steam piping, foundations, etc., and the removal of existing old boilers and piping, etc.; also separate bids for remodeling the north half of the boiler house of the 68th St. pumping station.

BLOOMINGTON, ILL.—We are officially advised that bids will be readvertised by the Water Board, F. H. Lamp, Supt. for remodeling water-works, to include a 6,000,000-gallon pump, boilers, etc. Bids were to have been received on Dec. 28, but owing to some necessary changes readvertisement has been decided upon.

DODGEVILLE, WIS.—Bids will be received by Henry Halverson, City Clk., until 7.30 p. m., Jan. 4, for furnishing and erection of either a cypress-wood or steel tank 22 ft. in diameter by 24 ft. high. Plans and specifications on file at the City Clerk's office, and at the office of W. G. Kirchoffer, Engr., 31 Vroman Bldg., Madison, Wis.

BURLINGTON, IOWA.—We are officially advised that a drainage pumping plant is to be erected on the West bank of the Mississippi River about nine miles above Burlington. It is expected that bids will be received about Jan. 1 on a complete pumping plant, including building and foundations having a pumping capacity of at least 525 cu. ft. of water per second against a 12-ft. head. It is expected that the plant will be completed in May, 1910, and in order to facilitate the delivery of materials the Drainage District is arranging to build a tramway from Burlington to the pump plant site. The Harman Engineering Co., 120 Fredonia Ave., Peoria, Ill., are Engrs.

MINNEAPOLIS, MINN.—We are officially advised that the following bids were received by the City Council on Dec. 17, for c. i. pipe and special castings: C.-I. water-pipe, 6, 8, 12, and 16-in: Sheffield Cast Iron Pipe & Foundry Co., Sheffield, Ala., $26.50 (all sizes, f. o. b. Minneapolis); American Car & Foundry Co., Detroit, Mich., $29 (same); J. B. Clow & Sons, 350 Franklin St., Chicago, Ill., $29 (same); U. S. Cast Iron Pipe & Foundry Co., 217 La Salle St., Chicago, Ill., $26.85 (same); Camden Iron Works, Camden, N. J., $32.65 (same); Massillon Iron & Steel Co., Massillon, Ohio, $30 for 6, 8 and 12-in., $29 for 16-in.; Dimmick Pipe Co., Birmingham, Ala., $28.15 for 6-in., $27.15 for all others. Special casting, per ton of 2,000 lbs., f. o. b.: Northwestern Foundry Co., Minneapolis, $57; U. S. Cast Iron Pipe & Foundry Co., Chicago, Ill., $57.50; Crown Iron Works, Minneapolis, $53.50; Glamorgan Pipe & Foundry Co., Lynchburg, Va., $53.65.

WAKEFIELD, KAN.—Plans are being prepared by Burns & McDonnell, Scarritt Bldg., Kansas City, Mo. for the construction of water-works. Estimated cost, $15,000.

ERIE, KAN.—Bids will not be opened for the construction of water-works until about Jan. 15 or Jan. 20. Contracts will also be let at that time for electric light plant and sewer system. Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., are Engrs.

ARKANSAS CITY, KAN.—The city contemplates an increased water supply and extensions of the water mains. J. H. Matthews is City Engr.; J. H. Titus is Consulting Engr., Arkansas City.

KEARNEY, NEB.—Eugene Morey, City Engr., has completed plans and specifications for the construction of water-works. Estimated cost, $149,280. G. E. Ford is City Clk.

VALENTINE, NEB.—The KATZ-CRAIG CONTRACTING CO., Branders' Bldg., Omaha, has secured contract for constructing the water and lighting system here, from plans of the W. K. Palmer Co., of Kansas City, Mo.

FORT ROBINSON, NEB.—Bids are asked until 11 a. m. Jan. 3, by Capt. F. T. Arnold, Constructing Q. M., U. S. A., for furnishing all material and labor for addition to and repairing pump house, new boilers, new pump, etc., here.

PERU, NEB.—Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., are preparing plans for the construction of water-works. Estimated cost, about $15,000.

VANDALIA, MO.—The city has voted $25,000 for water-works and sewerage. A test well is now being drilled.

LUBBOCK, TEX.—The city will spend about $50,000 for the extension of the water-works and sanitary sewer. A 3-story brick building, 50 × 115 ft., and a 2-story brick building, 50 × 115 ft. will be erected. A. Leon Dalton, Lubbock, is Engr.-in-Charge.

CALIFORNIA, MO.—The citizens on Nov. 30 voted to issue $30,000 of bonds for the construction of water-works. Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., are Engrs.

MIDLAND, TEX.—The city has voted $50,000 of bonds for the construction of water-works.

DENISON, TEX.—The City Council has had plans prepared for the extension of water mains south of Day St. Estimated cost, $40,000; also extensions north of Main St. are contemplated. Estimated cost, $22,500.

DALLAS, TEX.—Bids were opened by J. B. Winslett, City Secy., on Dec. 8, for furnishing 5,000 tons of piping and specials for constructing main line from White Rock reservoir and branch lines necessary to distribute water from new reservoir. Contract has been awarded to the U. S. CAST IRON PIPE & FOUNDRY CO., of Chattanooga, Tenn. Estimated cost, about $140,000.

TAYLOR, TEX.—Contract for dredging and excavating for the International & Great Northern Ry. Co.'s lake and reservoir for the storage of water on the Flag Springs ranch, three-fourths of a mile east of here, and to cover a basin of 17 acres of land, has been let to GEORGE BYRNE, of Houston, Tex.

OKLAHOMA CITY, OKLA.—The citizens on Dec. 6 voted to issue $150,000 of bonds for extra pumps, new dam and additional mains. Bids for construction will be received in about two months. W. C. Burke is City Engr.

GOTEBO, OKLA.—T. C. BROOKS & SONS, Jackson, Mich., has been awarded contract at $24,180 for the construction of the entire water-works for this city. Bids were opened on Dec. 8.

BROKEN ARROW, OKLA.—Bids are asked by the city until Jan. 10 for the construction of a water-works system. Estimated cost, $37,000. Archer & Rollins, Kansas City, are Engrs.

CLINTON, OKLA.—The city has awarded contract to the STONE CONSTRUCTION CO. of Clinton at $7,600 for constructing filtration system for the water-works. C. C. Smith is City Clk.

GUTHRIE, OKLA.—The citizens have voted to issue $125,000 of bonds for the improvement of the water system, sewer system, parks and fire service.

LAMAR, COLO.—Bids will be received until Jan. 9 by the Chivington Canal Co., at Lamar, Eugene C. Bell, Ch. Engr., Room 10, U. S. Land Office Bldg., for the construction of a reinforced concrete headgate about 100 ft. in length and 44 ft. in height; also for reinforced concrete riprapping containing altogether about 200 cu. yds. of concrete, located on the west bank of the Chivington Reservoir No. 4, about two miles south of Brandon Station.

COLORADO SPRINGS, COLO.—The Royal Gorge Irrigation & Construction Co. has been incorporated, it is reported, with a capital of $500,000, to irrigate land in Pueblo and Fremont Counties. The main reservoir of the company is at Leadville, and covers 75,000 acres. The water for the reservoir is from the east fork of the Arkansas River, the Ten Mile Creek and various other smaller tributaries of the Arkansas River. The incorporators are: George B. Tripp, T. F. Daly, James R. Moore and others, all of Colorado Springs.

WELDON, COLO.—John T. Warren, of Greeley, and others, it is stated, are interested in the construction of a dam across Platte River at the narrows, about six miles below here, to provide irrigation for about 1,000,000 acres of land in Morgan, Logan and Washington Counties. Estimated cost, $11,000,000.

The city proposes to install two more slow sand filters, work to be done by day labor. Estimated cost, $10,000.

SUNNYSIDE, WASH.—The Secretary of the Interior has granted authority to advertise for the excavation of the main lateral, pipe trenches and the construction of timber structures, including flumes, measuring boxes, wood-stave pipe, highway bridges and culverts required in the construction of the Byron unit of the Mabton division of the Sunnyside project, Washington. He has also authorized the construction by force account of a concrete turn-out and for the manufacture, furnishing and laying of concrete pipe, and for placing intake and outlet. The last-mentioned work is of such a nature that it will be difficult to secure bids from local contractors. The work is located at various points along the line of the canal and so scattered as to render it impossible for contractors to do the work in an economical manner. The Reclamation Service, at the present time, has a plant for the manufacturing of concrete shapes for pipe and has also immediately available a sufficient number of men skilled in this class of work to perform it expeditiously and economically.

*ABERDEEN, WASH.—Bids will be received by P. T. Clark, City Clk., until 5 p. m., Jan. 5, for the following f. o. b. Aberdeen: 250 length of Class C. 10-in. diameter c.-i. pipe; 12 lengths Class C 6-in. diameter c.-i. pipe; two 10-in. cast Tees; one 10-in. by 8-in. cast Tee; six 10-in. by 6-in. cast Tees; three 10-in. non-rising stem hub end gate valves; six 6-in. non-rising stem hub end and gate valves; six 6-in. Ellis hub and spigot ends; 200 lbs. first quality oakum; 5,000 lbs. pig lead.

PORTLAND, ORE.—Reservoir No. 6, at Mount Tabor, will be built at an elevation five feet lower than originally contemplated, and the Water Board will expend an additional $15,000. D. D. Clarke is Engr. Bd.

CALEXICO, CAL.—The Board of Trustees are arranging for a new municipal water system. New mains and laterals will be laid. Three reservoirs built, and an air pressure tank installed.

EL CENTRO, CAL.—The City Trustees have decided to engage the services of an expert engineer to prepare plans and specifications for water-works.

MODESTO, CAL.—The Oakdale Irrigation District will erect a large storage reservoir on the Stanislaus River, near here. Surveys have been made and estimates of the cost computed. A. Fullock, of Modesto, is Mgr.

SAN FRANCISCO, CAL.—The Board of Public Works on Dec. 8 awarded contract for constructing the Twin Peaks reservoir to the HEALY-TIBBITTS CONSTRUCTION CO., 268 Market St., San Francisco, at $158,143, the lowest bidders. Marsden Manson is City Engr.

PHOENIX, ARIZ.—The Avondale Co., Phoenix, will erect pumping stations along the Agua Fria River to irrigate 5,000 acres east of here.

GILA (Gila Bend post-office), ARIZ.—Nothing will be done for about six months on the proposed irrigation dam of the Gila Water Co. to be constructed near Phoenix. Olmsted & Gillelen Wright and Callender Bldg., Los Angeles, Cal., are Engrs.

McCAMMON, IDAHO.—Bids will be received until Dec. 27 by T. M. Edwards, Secy. Portneuf Marsh Valley Irrigation Co., Ltd., at McCammon, for constructing 16 miles of canal between McCammon and Downey.

POST FALLS, IDAHO.—The Post Falls Land & Water Co. and the Post Falls Irrigation Co., which irrigate a large tract of land near Coeur d'Alene, at the eastern end of the Spokane Valley, have been incorporated, it is reported, with a capital of $700,000. The new companies are reported to have agreed to put in an irrigation system covering 3,500 acres near here. The Directors are: James and Harry McLane, J. L. Gunsaulus, of Chicago; Ayres D. Lundy, of Lagrange, Ill., and Boyd Hamilton, of Coeur d'Alene.

NIAGARA FALLS, ONT.—COOK & CAMPAIGNE were awarded contract for the trench work in connection with the laying of the new 12-in. water main through the park by the Board of Water Commissioners on Dec. 10, at the following prices. Excavation, earth, 60 cts. per yd.; loose rock, $1 per yd.; solid rock, $3.60 per yd.; labor, 20 cts. per hr.

SEWERAGE.

(* *denotes that this work is advertised in Engineering News.*)

BAR HARBOR, ME.—The P. H. DOVEN CO., has been awarded contract for laying 1,400 ft. of 24-in. sewer pipe from Bar Harbor extending out to sea that distance.

GREENFIELD, MASS.—The Sewer Committee (George F. Merrill, Chn.) appointed to investigate the sewage disposal, has decided to recommend the construction of an intercepting sewer to prevent the present pollution of the Green River. William S. Johnson, of Boston, has been selected as consulting engineer. The intercepting sewer will be constructed so as to allow of a temporary discharge into Green River, but with the ultimate intention of adopting some form of purification near the point of temporary discharge. It is probable that no bids will be asked until after the town meeting in March.

BROOKLYN, N. Y.—Bids are asked until 11 a. m., Dec. 29, by Bird S. Coler, Boro. Pres., for the reconstruction and construction of sewers and sewer basins in various streets.

Bids were opened Dec. 8 by Bird S. Coler, Boro. Pres., as follows, for furnishing material and constructing sewers in 16th Ave., with outlet sewers in 72d St., 17th Ave. and other streets: Newman & Carey, 215 Montague St., Brooklyn, 93.33%; Murphy Bros., Bay 25th St., Brooklyn, 96.87%; Jos. L. Segretto, 88.9%; Culp & McCauley, Gravesend Ave., Brooklyn, 94.96%. Engineers' estimate, $52,347.

*BATAVIA, N. Y.—Bids are asked by J. H. Wood, Clk. Bd. Sewer Comrs., for excavating and constructing a sewage pumping well. K. B. Mathes is Chn.

NEW YORK, N. Y.—Bids will be received until Dec. 28 by John Cloughen, Acting Pres. Boro. Manhattan, for 206 lin. ft. brick sewer 3 ft. 6 ins. × 2 ft. 4 ins. in Theater Alley, between Ann and Beekman Sts., including 30 M ft. timber and planking.

ROCHESTER, N. Y.—The JOHN PETROSSI CO. has secured contract for constructing the Wolcott St. sewer at $4,336.

*CHARLESTON, S. C.—Bids will be received by J. H. Dingler, City Engr., until noon, Tuesday, Jan. 11, for pipe sewers and appurtenances as follows: Contract A, approximately three miles of pipe sewers, 18-in. to 8-in. diameter, with appurtenances and such 6-in. house connections as ordered; Contract B, approximately 8½ miles of pipe sewers 18-in. to 8-in. diameter, with appurtenances and such 6-in. house connections as ordered.

MACON, GA.—The citizens on Dec. 8 voted to issue $200,000 of bonds for constructing a sanitary sewer system and paving in Vineville.

CHARLESTON, MISS.—See item under Light and Power Plants.

KNOXVILLE, TENN.—The Board of Public Works has awarded contract to LONG & PRICE of Knoxville for constructing an 18-in. storm sewer in South Ninth St.

ALLIANCE, OHIO.—Bids will be received until noon, Dec. 28, by the Board of Public Service, C. E. Swearingen, Clk., for constructing a sewage disposal plant.

SANDUSKY, OHIO.—Plans have been prepared for rebuilding 2,500 ft. of 10, 12 and 15-in. sewer in Franklin St. Estimated cost, $3,000. C. M. King is City Engr.

SPRINGFIELD, OHIO.—CHARLES BIRD has been awarded contract at $10,213 for the construction of the Warder St. sewer at $3,571, for the sewer between Lagonda Ave. and Buck Creek and $6,642, for the portion in Warder St. and Highland Ave., and Williamson and Greenmount Aves.

M. J. COONEY has been awarded contract at $4,521 for the construction of the Jackson, Light, High and Shaffer St. sewer.

DAYTON, OHIO.—Bids are asked until noon, Dec. 30, by the Board Public Service for the construction of a 36-in. reinforced concrete by-pass sewer from the east side drain along the north side of the levee to the Longworth St. pumping station. William A. Budroe is Clk.

GRAND RAPIDS, MICH.—VERHEY & KLOET were awarded contract on Dec. 9 for the construction of the Walker Ave. sewer at $23,744 by the Board of Public Works.

BAY CITY, MICH.—THOMAS MORRISON has been awarded contract for the construction of a 10-in. socket tile sewer in the Washington Ave.

ROCK ISLAND, ILL.—The PEOPLE'S CONSTRUCTION CO., of Davenport, Iowa, has secured contract for constructing the Sixth Ward sewer system at $47,583. Bids were opened on Nov. 22. List of bidders noted on Dec. 9. Wallace Treichler is City Engr.

CHICAGO HEIGHTS, ILL.—We are officially advised that contract has been awarded by the Board of Improvements to the CHICAGO HEIGHTS COAL CO., at $31,989, for 998 lin. ft. of 36-in. monolithic concrete sewer; 3,399 lin. ft. of same; 2,866.9 lin. ft. of 24-in. D. S., 2,367.7 lin. ft. of 18-in. D. S., 6,742.6 lin. ft. of 15-in. D. S. vitrified tile sewer, 148 catch basins, 57 manholes, and 10 cu. yds. of concrete outlet bulkhead. Other bidders were: C. Roberts, 565 Taylor St., Chicago, Ill., $35,986; James Healy & Son, Morgan Park, Ill., $34,890; Prisco Bros. and Dandrea, Chicago Heights, Ill., $32,073; National Contracting Co., Chicago, Ill., $35,116. A. L. Fox is City Engr.

BELLE PLAINE, IOWA.—City Council has ordered a survey made for a sewer outlet, septic tank, etc. The Council plans to lay between four and five miles of sanitary sewers in the spring.

MINNEAPOLIS, MINN.—We are officially advised that contract has been awarded by the city to the R. J. & W. M. BOYD CONSTRUCTION CO., 200 Southwest Boulevard, Kansas City, Mo., at $27,928, for the construction of sanitary sewers here. Burns & McDonnell are Engrs., Scarritt Bldg., Kansas City.

GREAT BEND, KAN.—We are officially advised that the following bids were opened on Dec. 7 by the city for the construction of a sanitary sewer system from the plans of the W. K. Palmer Co., Dwight Bldg., Kansas City, Mo; (a) Sec. 1 complete, (b) Sec. 2 complete: S. T. Davis Construction Co., Joplin, Mo., (a) $23,000, (b) $43,000; Marshall Bros., Las Anfmas, Colo., (a) $24,700, (b) $43,400; E. M. Eby, Wellington, Kan., (a) $24,000, (b) $44,000; Rushmoer & Gowdy, Cherryvale, Kan., (a) $23,000, (b) $41,900; Mishou, Ripley & Hasselmen, Pueblo, Colo. (a) $23,896, (b) $43,280; BASH & GRAY, Joplin, Mo., (a) $25,510, (b) $38,440 (awarded contract). J. W. Smith & Son, Webb City, Mo., (a) $22,000, (b) $30,000. Engineer's estimate, $68,208.

ERIE, KAN.—See item under Water Supply Irrigation.

LAWRENCE, KAN.—Bids are asked by F. D. Brooks, City Clk., until 5 p. m. Jan. 3, for furnishing materials and constructing the lateral sewers.

SIOUX FALLS, S. DAK.—J. W. Johnson, City Engr., has completed plans for the construction of sewers on the west side of the river. Estimates of cost are as follows: For extension of the main outlet in North Phillips Ave. from Third St. to river, $34,000; for an extension of the main sewer in South Phillips Ave., $20,000; for main western interceptor from a point near the normal school along western boundaries of city through the penitentiary hill, $85,000. Total, $139,000.

VANDALIA, MO.—See item under Water Supply-Irrigation.

CORSICANA, TEX.—The City Council has passed an ordinance authorizing the issuance of $20,000 of bonds to extend the sewer system.

HOUSTON, TEX.—F. L. Dormant, Engr., is completing plans and specifications for sanitary sewers in the Second and a portion of the Third Ward.

PALESTINE, TEX.—City Commissioners are considering the construction of 15,000 additional feet of sewer pipe.

OKLAHOMA CITY, OKLA.—Bids are asked by the city until 5 p. m., Dec. 27 for the construction of a sanitary main sewer consisting of lines B, D and E. Bob Parman is City Clk.

The city has awarded contract to the TULSA ENGINEERING & CONSTRUCTION CO., Tulsa, Okla., for constructing certain sewers in Deep Fork Addition.

*DENVER, COLO.—Bids are asked until 11 a. m., Jan. 14, by the Board of Public Works for the construction of district sewers, sub-mains and their appurtenances in and for the West and South Side sanitary sewer district in the city and county of Denver. For details see advertisement in this issue.

HOQUIAM, WASH.—Specifications have been completed for the construction of a trunk sewer here. Estimated cost, about $50,000.

TACOMA, WASH.—Bids for storm sewers in Pearl St., have been received by the City Council as follows: N. A. Jones, California Bldg., $6,887; E. M. Moore, $8,900; Lister Construction Co., Berlin Bldg., $8,180. Engineer's estimate, $7,533.

SOUTH PASADENA, CAL.—The City Trustees on Dec. 7, received bids for a storm sewer. Contract was awarded to M. LAGENOVICH of Los Angeles, Cal., lowest bidder, at $31,950. Other bidders were: O. F. Easley, $34,536; California Ornamental Brick Co., Los Angeles, $34,818; A. Holloway, Pasadena, Cal., $34,900; A. S. Bent, Los Angeles, $38,950.

MONTEREY, CAL.—We are officially advised that EPHRAIM DYER & CO., of San Francisco, have been awarded contract for the Clay St. storm sewer. The contract for the Dickman Ave. storm sewer will be let soon. H. D. Severance is City Engr. John Burrage, 3400 Washington St., San Francisco, is Consulting Engr.

COLTON, CAL.—The citizens have voted in favor of bonding the city for constructing a sewer system. Estimated cost, $60,000 to $100,000. W. L. Brown is City Engr.

IMPERIAL, CAL.—Bonds for $40,000 have ben voted by the city for a new sewer system.

*TORONTO, ONT.—Bids will be received by registered post only until noon, Feb. 15, by Joseph Oliver, Mayor, and Chn. Bd. of Control, for sewer outlet, sewage tanks, and supply of steel, c.-i. pipe, sludge valves, etc. For details see advertisement in this issue.

PRINCE RUPERT, B. C.—Bids are asked until Jan. 19, by the Department of Public Works, for the installation of sewerage works.

GARBAGE DISPOSAL.

NEW YORK, N. Y.—Bids are asked until noon, Dec. 31, by William H. Edwards, Comr. Street Cleaning, for furnishing all the labor and materials required for the removal of snow and ice in the Boroughs of Manhattan, Brooklyn and the Bronx, Forms 1 and 2.

PORTLAND, ORE.—Bids will be received by A. L. Barbour, City Audr., until 9 a. m., Jan. 3, for the construction of one garbage plant of 150 tons capacity. Bidders are to furnish their own plans and specifications.

STREETS AND ROADS.

(* *denotes that this work is advertised in Engineering News.*)

NEW YORK, N. Y.—Bids are asked by John Cloughen, Acting Pres. of the Boro. of Manhattan, until 2 p. m., Dec. 30, for regulating and repaving with sheet asphalt and granite block various streets in Manhattan.

The following bids were received on Dec. 16 by the Park Board, for labor and material for grading and laying asphalt block pavement on the south side of the Bronx and Pelham Parkway, from White Plains Road to the bridge over tracks of the New York, New Haven & Hartford R. R. Co: Hastings Pavement Co., 25 Broad St., New York, $90,576; Barber Asphalt Paving Co., 30 Church St., $96,492; Sicilian Asphalt Paving Co, 41 Park Row, New York, $94,154.

The Board of Estimate has approved the Coney Island & Brooklyn R. R. Co.'s plan of parking Coney Island Ave., from the Park Circle to Coney Island. Bird S. Coler is Pres. of Boro. of Brooklyn; E. L. Matthews is Supt. of Roadways, C., I. & B. R. R. Co.

RED BANK, N. J.—The contract for paving Front St. has been awarded to CHARLES E. BURD, of Red Bank, at $2.35 per sq. yd. A. C. Harrison is Boro. Clerk.

MAYS LANDING, N. J.—Bids will be received by the Bd. of Chosen Freeholders of Atlantic County, at Mays Landing, until 11 a. m., Jan. 1 for the construction of a gravel road from Mays Landing to the draw bridge at Tuckahoe. E. D. Rightmere is County Engr., 530 Bartlett Bldg., Atlantic City.

ENGLEWOOD, N. J.—EDWARD ENGLISH has secured the contract for constructing a concrete sidewalk and macadamizing a portion of West End Ave., at $7,500.

PULASKI, VA.—Bids were received on Dec. 11, at the office of the State Highway Commissioner at Richmond, Va., for the erection of 2.6 miles of road in Pulaski County, from the town of Pulaski to McAdam Road. This is not a part of the system of roads to be built with the proceeds of the bond issue which was voted on Dec. 4. Two bids were presented. The lower was that of Warden, Hattel & Co., of Pulaski, at $12,785. The other was presented by Smith & Lowe, of Pulaski, at $13,737.

MACON, GA.—See item under Sewerage.

*VICKSBURG, MISS.—We are officially advised that the bids received by J. J. Hayes, Mayor, on Dec. 6, for paving streets with vitrified brick, granitoid, bitulithic, asphalt, mineral rubber and creosoted wooden blocks, have been returned unopened. The following are the streets to have been paved: Walnut St., from First East to South Madison Sts., nine blocks; Drummond St., from Harris St. to Bowmar Ave., four blocks; Veto St., from Washington to Monroe Sts., two blocks. C. R. Twiss is City Engr.

WOODSFIELD, OHIO.—Bids will be received until Dec. 28 (readvertisement), at the office of the Board of County Commissioners of Monroe County, at Woodsfield, for grading and macadamizing or paving with brick 1.02 miles of road in Center Township, under the provisions of the State highway laws. Estimated cost, macadam, $9,685, and brick, $16,753. James C. Wonders is State Highway Comr., Columbus, Ohio.

COLUMBUS, OHIO.—Contracts have been awarded by the Board of Public Service of Columbus for improving of 16 streets and constructing three sewers. J. C. BEASLEY, Columbus, was awarded one contract, to grade Detroit Ave., at $1,848; BUDD & BARTLING, Columbus, have the contract to pave Duxbury Ave. with Athens block at $3,685; also to pave Wilcox Ave., with the same materials for $2,454; W. H. GRAHAM secured the contract to pave Elm St., with Athens block and tar filler at $1,285; also to pave Morril Ave., with Peebles brick at $2,412; H. J. SHAW, Columbus Savings & Trust Bldg., was given the contract to pave Fifth Ave. with Athens block, one section for $3,656 and the other section for $6,885; H. E. BARTHMAN was awarded the contract to pave Locust St. with Athens block for $1,371; GEIGLE & GARNES, Columbus, were let the contract to pave Mink St. with Athens block for $2,043; A. G. PUGH, was given the contract to pave 22d St. with California asphalt, at $8,067; H. J. SHAW was given the contract to pave Price St., with Metropolitan block for $8,460.

AKRON, OHIO.—Bids for street and sewer improvements were received on Dec. 14 by the Board of Public Service as follows: Valley St. paving, from Crosby to Silver Sts., Hunt & Wigley, $5,684; Dan O'Marr, $5,656; Wildes & Davidson, $5,439; McAlonan Bros., $6,147; John O'Neil, $5,866. John T. Payne is City Engr.

NORTH CHICAGO, ILL.—The Bureau of Yards and Docks, Navy Dept., Washington, has awarded contracts as follows for the construction of the roads and walks at the Naval Training Station, North Chicago, Great Lakes, Ill.: Roads to JAMES CAPE & SONS, 468 Water St., Racine, Wis., at $57,060; walks to WARREN BROS. CO., Temple Pl., Boston, Mass., at $27,500. A complete list of bids was given in Engineering News, on Dec. 2.

FREEPORT, ILL.—The street improvements for the coming year probably will include the following: Adams and Williams Sts., one mile of brick; Union St., Dexter, Pleasant Park Aves., ⅝ miles of brick; Jefferson, High, Float and Rotzler Sts., ⅔ miles of macadam or brick; Douglas Ave. and Powell St., ¼ mile of macadam; Maple Ave., ¼ mile of macadam or brick; Whistler St., two blocks of brick. Contracts will be let March. John A. R. Daniels is City Engr.

FORT LEAVENWORTH, KAN.—Bids will be received until 11 a. m., Jan. 8, by Capt. William D. Davis, Q. M., U. S. A., for grading about 84,000 cu. yds. earth at this post.

ST. JOSEPH, MO.—The Board of Public Works has awarded the contract for resurfacing with asphalt a portion of Francis St. to the METROPOLITAN CONSTRUCTION CO., at $1.35 per sq. yd.

NORMAN, OKLA.—The City Council has decided that it will pave 50 blocks and will advertise for bids on rock asphalt and petrolithic pavement. It is stated that until the time for receiving the bids the Council will investigate the new pavement. About 50 blocks more pavement will be called for at once if the council should decide to pave with petrolithic.

*ELK CITY, OKLA.—Bids are asked until 8 p. m., Jan. 10, by R. J. Carlile, City Clerk, for 20 blocks of vitrified block paving, including, grading, storm sewer, curbing, guttering, etc. R. J. Lancaster, Wilson Bldg., Dallas, Tex., is Engr.; H. O. Hixon is Mayor.

TULSA, OKLA.—The Commissioner of Streets and Alleys has been instructed to open Denver Ave. across the 'Frisco and the M., K. & T. railroad tracks.

SAN DIEGO, CAL.—The City Council of San Diego, has awarded to M. D. GOODBODY a contract for improving 17th St., from C St. to city limits, at $7,989.51.

SAN BERNARDINO, CAL.—The B. F. FORD CO., has submitted the lowest bid for macadamizing D St., at $25,514. Others were: E. R. Werdin & Co., Los Angeles, $26,206; Ernest Frenzil, Redlands, Cal., $25,690; Johnson-Shea Co., $27,859. The Highway Construction Co. was lowest bidder for macadamizing Third St., from A to Allen Sts., at $6,092. Other bids were: B. F. Ford Co., $6,647; Johnson-Shea Co., $7,067; Ernest Frenzil, Redlands, Cal., was lowest bidder, at $9,657, for improving Mount Vernon St., from Fifth to Fourth Sts., and Fourth, from Mount Vernon St. to the city limits. Other bids: Johnson-Shea Co., $10,437; B. F. Ford Co., $11,027.

LONG BEACH, CAL.—The city of Long Beach, has authorized the grading, paving and curbing of Esperanza, Falcon, Gaviotta and Hermosa Aves. F. S. Craig, is Pres. of the Board of Public Works.

WHITE & GASKELL, Long Beach, have been awarded the contract for paving the following streets: Quiao, Redondo, Obispo, Sobrande, Second and Park. The work includes 206,000 sq. ft. of paving, and the contract price is over $11,500.

PHOENIX, ARIZ.—The Board of Supervisors of Maricopa County, Ariz., will receive bids for a gasoline road roller, not to exceed $3,500 in cost.

PHOENIX, ARIZ.—It is proposed to lay a 6-in. crushed rock oiled roadway, 16 ft. wide, on Central Ave. Cost, about $30,000. Maj. E. M. Samson is Secy. Special Road District No. 1.

PRESCOTT, ARIZ.—On Dec. 8 the Board of Supervisors awarded the contract for the building of a wagon road from Pine Flat to Mayer to SINES & ROCKMARK, of this city, for the sum of $8,175. Work will be started on the road immediately.

MANUFACTURING PLANTS.

(* *denotes that this work is advertised in Engineering News.*)

PORTLAND, ME.—A 6-story cement building in which linoleum will be manufactured is to be built at Morrill's Corner. The cost of the plant will be $150,000, including machinery. About 100 men will be employed. The machinery has been ordered to be delivered in six months. George H. Davis is interested.

SALEM, MASS.—The Luther G. Straw Shoe Co. will build additions to its factory on Canal St., Salem, Mass., and will double its output of boots and shoes. Another story will be built to the present factory by raising the roof. An additional wing, 50 × 70 ft., will be built also.

THREE RIVERS, MASS.—Plans are being prepared for a hydro-electric plant for the Otis Co., Three Rivers, Mass., which will utilize all of the fall from the present dam to stock water below its Palmer Mill. It probably will involve the erection of a dam at the foot of the gorge below the mill and the abandonment of the present dam and canal. The power to be developed will be about double that now obtained from the mill's water wheels, and will make the use of steam power unnecessary during the greater part of the year. The weave shed, recently completed for the Palmer Mill, is being filled with looms removed from two floors of the main mill. Some 250 Draper dobby automatics are being added and some old looms thrown out, the total equipment of the weave shed being about 1,260 looms. The old weave rooms in the main mill will be filled with cards and other preparatory machinery. An addition to the picker house and a cotton opening room across the river in the cotton storehouse are among future possibilities.

TAUNTON, MASS.—The contract will be awarded soon for a brick factory for the Globe-Taunton Nail Co. on Railroad Ave. The building will be of slow burning mill construction, one story in height and will include a power-house. Gustavus L. Smith is Arch., Highland St. Cost, $30,000.

BRIDGEPORT, CONN.—The Connecticut Co. has awarded a contract to CHARLES W. MURDOCK, 839 Chapel St., New Haven, for the construction of its brick and concrete car-houses in Bridgeport, foundations for which have been completed. The building is to cost about $150,000, and will cover 241 × 331 ft., partly two stories high and partly one.

NEW YORK, N. Y.—Daniel Auerbeck & Sons, candy manufacturers, have bought the block front on the east side of Eleventh Ave., between 46th and 47th Sts., and announced their intention of building there a candy factory. The block front measures 200 × 150 ft. It was owned by the Atlantic Brewery Co.

UTICA, N. Y.—The Ritesize Underwear Co., of Utica, N. Y., has been incorporated with capital stock of $30,000 to manufacture union suits for men. The incorporators of the company are: W. Fred Allen, Pres. of the La Tosca Knitting Co., of Utica; John E. McLoughlin and R. P. McLoughlin, respectively, Treas. and Agent of the La Tosca Knitting Co., and Fred C. Lewis, formerly Secy. and Mgr. of the Ilima Underwear Co., of Utica. The company will begin operations in a building on Deverux St. in Utica.

GUTTENBERG, N. J.—The American Cotton Oil Co., of Ferry and River Sts., has secured additional ground and will erect two large factory buildings, it is stated.

BUTLER, PA.—The Butler Provision & Packing Co. has awarded contracts for about $10,000 worth of equipment for the packing house, now under construction near the Butler brewery. The PHILLIPS MFG. CO., of Butler, has been awarded the contracts for several boilers, gas engines and a complete plant for manufacture of ice for the new concern. Work on remodeling buildings of the old Thorne planing mill property, which the packing company recently purchased, is under way, and as soon as the buildings are completed, new machinery will be put in place.

PHILADELPHIA, PA.—The Enterprise Mfg. Co., whose main plant is at Third and Dauphin Sts., has had work begun on a plant on a portion of an 81-acre tract at Cornwells, Bucks County, owned by it, which will be run as an adjunct of Third and Dauphin Sts. Four buildings are included in the Cornwells operation, the last of which will be about $500,000. The buildings will be 1-story, of reinforced concrete. The main building will be 500 × 120 ft., and a secondary structure, 120 × 40 ft. The others will be power-houses. The plant will be equipped with shipping facilities by both rail and water, as it is adjacent to both the Delaware River and the New York division of the Pennsylvania R. R. Sidings from the railroad and a canal slip from the river will enter the plant.

The Friedberger-Aaron Mfg. Co. has bought a tract containing about 3¼ acres, at the northwest corner of 18th and Courtland Sts., as a site for a plant, costing about $300,000, the contract for which has been awarded to the WILLIAM STEELE & SONS CO., 1600 Arch St. It is the intention of the company to cover the entire tract. The first buildings to be erected, work upon which will be begun shortly after Jan. 1, will be a 3-story manufacturing building, of reinforced concrete, 62 × 350 ft. in dimensions, and a power-house 50 × 100 ft. The company now occupies a plant at 18th St. and Fishers' Lane, owned by the George W. Carpenter estate. Its new plant will be directly opposite the tract bought by the city recently for Stenton Park.

THOMAS C. TRAFFORD, 2335 North 15th St., has the contract for a 2-story factory, 55 × 129 ft., for the Quaker City Box Co., at a cost of $15,000.

PHILADELPHIA, PA.—See item under Buildings.

HARRISBURG, PA.—The directors of the Wellknit Hosiery Co. are planning the erection of a 3-story mill, of concrete, iron and brick, to cots $40,000.

BLADENBORO, N. C.—Bridger Bros., of Bladenboro, N. C., have completed arrangements for the organization of a proposed cotton factory company. A meeting of Bladenboro people was held during the past week, and about $150,000 was subscribed. It is probable that the capitalization will be $200,000 and all details are expected to be determined by the first of the year. A 10,000 spindle plant is contemplated. H. C. Bridger, N. M. Single, E. C. Hester, R. C. Bridger and others are among those subscribing to the capital stock

MACON, GA.—The Southland Knitting Mill, Macon, Ga., has arranged to issue bonds aggregating $30,000, to be invested in plant improvements that probably will double the mill's capacity. The company is operating 45 knitting machines, etc., on underwear production.

COLUMBUS, GA.—Ralph B. Small, W. E. Minter, and Mercer Morris, of Macon, Ga., have decided, it is stated, to establish in Columbus, a $50,000 plant for manufacturing sewer pipe. Operations will begin at once.

CHATTANOOGA, TENN.—Press reports state that a manufacturing plant, giving employment at the outset to about 1,500 people, and representing approximately $1,000,000 investment, will be established in Chattanooga. The plant will be for the manufacture of machines under the Murphy processes, for the purification of water and other liquids. The company controlling these patents and processes, and which plans to build the factory, is the Metallic Electro Purification Co., of Toledo, Ohio. The location of the plant here depends on a favorable contract with the Chattanooga & Tennessee River Power Co., for from 20,000 to 25,000 HP., when the power house at Hale's Bar begins to send current to the city. It is stated that the factory when erected will occupy about five acres of ground.

KNOXVILLE, TENN.—The Standard Knitting Mill of Knoxville, Tenn., has awarded contract to J. M. DUNN & SONS for the erection of its warehouse and box shop. This building will be of mill construction, 196 × 28 ft., and will cost about $10,000. It will have a steam heating plant, electric lighting fixtures, etc. C. H. Hudson, of Knoxville, prepared the plans and specifications, and the building is expected to be completed next month.

TOLEDO, OHIO.—The United Tile, Marble & Terrazzo Co., recently incorporated, is having specifications prepared for a marble mill. A site has not yet been secured for the industry, but it is planned to erect the plant on one of the railroads entering the city. The company has opened offices in the St. Clair Bldg. The officers of the company are: A. J. La Verne, Pres. and Gen. Mgr.; A. J. Whiteford, Secy. and Treas., and F. B. Kimball, Attorney.

CLEVELAND, OHIO.—Ernest McGeorge, Arch., will take bids for constructing a 3-story brick and steel fonudry building on East 93d St. and Quincy Ave., for the Peerless Motor Car Co. Cost, $40,000.

AKRON, OHIO.—The Quaker Oats Co. will erect a plant here, it is stated, covering 10 acres. Cost, $100,000.

The Firestone Tire & Rubber Co. is having plans prepared for new buildings which will cost, including power plant, $350,000.

GARY, IND.—The U. S. Steel Corporation announces that it will build another plant in this city, to cost $4,500,000. The new plant will be the Western branch of the American Sheet & Tin Plate Co. The site selected includes 500 acres on the shores of Lake Michigan.

ANDERSON, IND.—The insurance having been adjusted on the fire loss of the Fletcher Enameling Co.'s factory, bids will be asked for soon for the construction of a $60,000 plant on the old site. U. G. Fletcher is Pres.

RICHMOND, IND.—The American Seeding Machine Co. is preparing to ask for bids for the erection of an addition to its plant in this city. James A. Carr is Pres.

ELY, NEV.—See item under Buildings.

BURLINGTON, IOWA.—The Chicago, Burlington & Quincy Ry. Co. is planning improvements to its machine shops at West Burlington. J. Rivett is Supt. of Bldgs., Lincoln, Neb.

SIOUX FALLS, S. DAK.—The John Morrell Co., of Ottumwa, Ia., is having plans prepared by Z. T. Davis, Steinway Hall, Chicago, Ill., for a packing plant to be erected here. Probable cost, $100,000.

WHITE CLIFFS (Folmina post-office), ARK.—A 3,000-bbl. plant, equipped with 150 kilns, will be erected, it is stated, on the property of the White Cliffs Portland Cement Co., plans for which are being prepared. It is proposed to operate the machinery by electricity, which may be supplied from a hydro-electric development on the Red River, if gas engines are not installed.

MARBLE FALLS, TEX.—The Granite Mfg. Co., of Marble Falls, Tex., has completed arrangements ensuring the establishment of the cotton factory in connection with its water-power development. The company intends to install an equipment of 800 looms for weaving ginghams, chambrays and madras, contract for the machinery having been awarded to WHITTED & WHITE, of Charlotte, N. C. The yarns will be purchased until such time as the company determines to install spindles for spinning its supply of yarns. Electricity will be the motive power of the plant, and the current will be furnished by the Colorado River Power Co., which is building a water-power electrical plant. J. A. Smith, a cotton manufacturer of Charlotte, N. C., is interested in the immediate management of the Granite enterprise. The cotton mill will cost about $60,000.

SAN ANTONIO, TEX.—The Rinehart Construction Co., of San Antonio, is planning the construction of a woolen manufacturing plant in connection with arrangements for locating an industrial suburb. The company has been incorporated by Ira C. Rinehart and associates.

LAWTON, OKLA.—Articles of incorporation have been filed for the E. L. Shuford Mfg. Co., of Lawton, Okla., the capital stock being $500,000. The incorporators are E. L. Shuford, of Hickory, N. C., Browne Cornelison, of Oklahoma City, Okla., and R. E. Prosper, of Lawton, Okla. It is stated that a textile industry will develop from this establishment. Joseph E. Sirrine, of Greenville, S. C., has been engaged to prepare plans for the plant. The plant will probably begin with 10,000 spindles and 300 looms for manufacturing cotton cloth.

SAN FRANCISCO, CAL.—Repair shops, costing $500,000, and which, when completed, will employ 800 men, will be erected in San Francisco or vicinity by the Pullman Co., 6 Adams St., Chicago, Ill., as soon as a suitable site can be selected. Richmond Dean is Gen. Mgr. of the company. S. S. Hungerford is Gen. Supt. of the company.

EL CENTRO, CAL.—J. L. TRAVERS, of El Centro, has a contract to erect a factory building for the Imperial Alfalfa Milling Co., at El Centro, to be of concrete and equipped with suitable machinery.

The Simons Brick Co. is erecting a brick making plant at El Centro, and will be ready soon to purchase the necessary machinery and equipment.

DOLGEVILLE, CAL.—John G. Krempel, Arch., Hume Bldg., Los Angeles, Cal., is preparing plans for two factory buildings for the Alfred Dodge Mfg. Co., at Dolgeville. One is to be 135 × 117 ft., with corrugated galvanized iron covering, tar and gravel roof, concrete foundation and cement floor. The other building is to be one story high, of reinforced concrete, 30 × 50 ft., with reinforced concrete roof, wire glass skylights, cement floor, fireproof doors, to be used for cotton pulling purposes.

SACRAMENTO, CAL.—The Central California Traction Co., of San Francisco, Cal., in conjunction with the Northern Electric Co., Chico, plans to erect a 10-story steel and concrete building at the northeast corner of Eighth and L Sts. The ground floor will be used as a terminal, and the first floor for headquarters for both companies. Samuel B. McLenegan, 413 Weber Ave., Stockton, Cal., is Gen. Mgr. of the C. C. T. Co.

KINGSTON, ONT.—The Kingston Shipbuilding Co. is planning to erect a repair shop, costing about $150,000.

PORT ARTHUR, ONT.—An industry for the manufacture of linen will be established at Port Arthur. The Canadian Linen & Paper Co., has made an agreement with the Civic Industrial Committee whereby it will start in May, 1910, on the construction of a $50,000 plant and will spend $250,000 in five years, giving employment to 150 men. The corporation of Port Arthur has granted the company a free site of 50 acres and exemption from taxes. Those interested in the enterprise are E. P. Bender, Dr. Phar and H. F. Forrest, of Winnipeg, Man. Linen and paper will be manufactured from flax.

MISCELLANEOUS CONTRACTS.

(* *denotes that this work is advertised in Engineering News.*)

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

DITCH.—Frankfort, Ind.—Bids are asked until 2 p. m., Jan. 1, by Wm. A. Robison, Drainage Comr., for constructing the Joseph W. Yundt Ditch.

DITCH.—Madison, Minn.—Bids will be received by A. G. Shogren, County Audr., until Dec. 28, for constructing Ditch No. 34. Estimated cost, $40,414.

FIRE ENGINES, ETC.—Calexico, Cal.—Bids will be requested soon by the Board of Control for two chemical fire engines, 500 ft. of hose and 30 hydrants.

EARTHWORK.—Fort Leavenworth, Kan.—Bids are asked by Capt. Wm. D. Davis, Q. M., until 11 a. m., Jan. 8, for grading approximately 24,000 cu. yds. of earth.

WHARF.—Marimar, Cal.—The Board of Public Works of Miramar will soon call for bids for construction of a municipal fishing wharf at Devil's Gate. Cost, $5,000.

TANK WAGONS.—New York, N. Y.—Bids are asked by George Cromwell, Pres. Boro. of Richmond, until noon, Dec. 29, for furnishing three tank wagons with heating attachment.

*DRAINAGE SYSTEM.—Grandfalls, Tex.—Bids are asked until 2 p. m., Jan. 22, by the Drainage Commissioners for the construction of about 20 miles of drainage ditches. A. H. Dunlap, Engr.

TILE DRAIN.—Boone, Iowa.—Bids will be received until Jan. 15 (readvertisement) by the Board of County Supervisors; for constructing tile drain No. 36. E. F. Jones is County Audr.

DREDGING.—New York, N. Y.—Bids are asked until noon, Dec. 30, by Allen N. Spooner, Comr. Docks and Ferries, for dredging about 200,000 cu. yds. in North River, Boro. of Manhattan.

GARDEN MOULD.—New York, N. Y.—Bids are asked by the Park Board until 3 p. m., Dec. 30, for furnishing and delivering 1,000 cu. yds. of garden mould for East River Park, Boro. of Manhattan.

AIR COMPRESSOR.—New York, N. Y.—Bids received on Dec. 9 by T. W. Stevenson, Bridge Comr., for furnishing and delivering one duplex steam-driven air compressor to the Brooklyn Bridge, have been rejected.

SEA WALL.—North Chicago, Ill.—The Bureau of Yards and Docks, Navy Department, Washington, D. C., has awarded contract to the GREAT LAKES DREDGING & DOCK CO., Chicago, Ill., for the construction of an inner basin sea wall at the Naval Training Station, North Chicago, Ill., at $42,800.

JETTIES, DIKES.—New York, N. Y.—Bids will be received until noon, Jan. 27, by Col. W. M. Black, Corps Engrs., U. S. A., Army Bldg., New York, for repairing and extending jetties and constructing dike at Mattituck Harbor, N. Y.

PATROL WAGONS.—New York, N. Y.—Bids are asked by William F. Baker, Police Comr., until 10 a. m., Dec. 31, for furnishing and delivering five double patrol wagons for the use of the Police Department of the City of New York.

RIFLE RANGE.—Tonawanda, N. Y.—The State Armory Commission, Albany, will soon ask for bids for the work of constructing a new rifle range for the Fourth Brigade at Tonawanda, N. Y., at a cost, it is said, approximating $24,000.

LEVEE.—New Orleans, La.—The Board of Commissioners, Lafourche Basin Levee Dist., has let contract for constructing the box levee at Gretna, La., to JOHN RIESS, 903 Hibernia Bank Bldg., New Orleans, at $11.85 per lin. ft. Bids were received on Nov. 30.

DITCH.—Olivia, Minn.—Bids which were to be received on Nov. 27 by J. L. Johnson, Audr., Renville County, Olivia, at the office of A. V. Rieke, attorney, at Fairfax, Minn., for deepening, widening and repairing Ditch No. 3, have been postponed until April 30, 1910.

*DREDGING.—Wilmington, Del.—Bids were received as follows by Capt. L. H. Rand, Corps of Engrs., U. S. A., on Dec. 13 for dredging Alloway Creek, N. J.: The Rickards Dredging Co., Philadelphia, 12½ cts. per cu. yd.; River & Harbor Improvement Co., Philadelphia, 18.9 cts.; place measurement.

NEW TOWN.—Oceanside, N. J.—The FILBERT PAVING & CONSTRUCTION CO., Pennsylvania Bldg., Philadelphia, has been awarded contract for laying out a town at Oceanside, N. J., for the Oceanside Realty Co. The cost will be approximately $300,000. The work consists of grading, sidewalks, curb, sewer and water pipe.

CEMENT, RIPRAP, ETC.—New York, N. Y.—Bids will be received by the Department of Docks and Ferries until noon, Jan. 4, on Contract No. 1207, for furnishing all the labor and materials required for furnishing and delivering cement, sand and broken stone and for furnishing, delivering and putting in place small cobble and riprap stone.

DITCHES.—Webster City, Iowa.—Bids were received by the County Auditor at Webster City on Dec. 15 for the construction of about 27 miles of main ditch and laterals in the Big Four Drainage District, situated in Hardin, Wright, Hamilton and Franklin Counties. Contract has been awarded to the NORTHERN CONSTRUCTION CO., Elkhart, Ind.

LEVEE.—New Orleans, La.—Bids were received on Dec. 8 by Maj. H. Burgess, Corps Engrs., U. S. A., 3338 St. Charles Ave., New Orleans, for constructing about 50,000 cu. yds. earthwork in the Ponchartrain Levee District. The bid of Robt. T. Clark, Natchez, Miss., at 14.9 cts. per cu. yd. ($7,450), was recommended for acceptance.

POSTS, WIRE FENCE, ETC.—Winnipeg, Man.—Bids will be received until Dec. 31 by M. Peterson, Secy. Board Control, for the supply of about 18,000 posts; for the manufacture and delivery of about 42 miles of woven wire fence, and for the erection of the fence along the right-of-way of the city's transmission line, between Brokenhead River and the city.

BLAST FURNACE.—Youngstown, Ohio.—The Republic Iron & Steel Co., of Pittsburg, has awarded the contract for the construction of the proposed new blast furnace at Haselton, Ohio, to the W. P. POLLOCK CO., Youngstown, Ohio. Work is to be started immediately and it is expected the new furnace plant will be ready for operation early next spring.

DITCH.—Forest City, Iowa.—Bids will be received until Jan. 6 by L. J. Nelson, County Audr:,, for constructing ditch work as follows: Drainage Dist. No. 1—176,000 cu. yds. open ditch work and 240 rods of 12-in. tile drains. Drainage Dist. No. 8—32,400 cu. yds. open ditch. Sub-District No. 1, Drainage Dist. No. 3—685 rods of 6, 8, 10 and 12-in. tile drains.

CEMENT.—Los Angeles, Cal.—Bids will be received until Dec. 24 by Horace B. Ferris, Secy. Board of Public Wks., for furnishing 100,000 bbls. Portland cement, also alternative bids for furnishing the said amount of cement with a reservation to the city of the right and option to require the contractor to furnish an additional quantity of cement not exceeding 100,000 bbls.

RAILROAD.—San Francisco, Cal.—The Board of Harbor Commissioners has awarded the contract for material and appurtenances for the proposed extension of the belt railroad to the PENNSYLVANIA STEEL CO., Chronicle Bldg., San Francisco, at $31,623. The contract for removing Spear St. wharf was awarded to the ASSOCIATED CONSTRUCTION CO., San Francisco, at $2,793.

SUBWAY.—Montreal, Que.—Bids were received on Dec. 7 by the Ville St. Louis Council for the St. Lawrence St. subway under the C. P. R. tracks as follows: Lauzon & Girard, $94,155; W. DUQUETTE, Montreal, $80,000 (awarded contract); Clinton Fire Proofing Co., Montreal, $187,467; Canadian General Development Co., $104,165; Laurin & Latch, $90,000; Henault & Heffernan, $120,000.

HOSE WAGONS, ETC.—New York, N. Y.—Bids will be received until 10.30 a. m., Dec. 28 by the Fire Department for furnishing and delivering two automobile combination gasoline engine and hose wagons, Boro. Brooklyn; also for furnishing and delivering one automobile combination gasoline engine and hose wagon, Boro. Queens; also for furnishing and delivering one automobile for Deputy Chief.

SAND-FILLING.—Escanaba, Mich.—JOHN MARSCH, of Iron Mountain, Mich., has been awarded the contract by the Chicago & North-Western Ry. Co. to carry out extensive sand filling work for the approaches to No. 5 and No. 6 dock at Escanaba, and for the additional yard room that is to be provided. As noted on Nov. 11, contract for dock No. 5 was awarded to M. J. PEPPARD, of Minneapolis.

DREDGING.—Columbus, Ohio.—Bids were received by the State Board of Public Works on Dec. 14 for dredging the Ohio Canal from Cemetery Bar at Lock No. 5A, south of the Portage Summit to Lock No. 10 south of Portage Summit to Zoar. Chas. E. Perkins, Ch. Engr. of Public Works. Contract was awarded to EDWARD BODETTE, Toledo, Ohio, at 15 cts. per cu. yd.; estimated quantity, 102,974 cu. yds.

DITCH.—Anderson, Ind.—Bids were received by the County Surveyor on Dec. 4 for construction of ditches. A. L. Smith, Supt. of Construction. Contract for the Daniels ditch was awarded to O. G. MILLER, at $8,468; the Ninnick ditch, to O. G. MILLER, at $2,485; Etchison ditch, to the ORESTES DRAIN TILE CO., Orestes, Ind., at $3,347; the Dewitt ditch, to the DAVIS BROS. TILE CO., at $1,100.

ORE DOCK.—Allouez, Wis.—Contract for rebuilding the upper portion of Great Northern Ry. Co.'s ore dock No. 2 at Allouez has been awarded to SCHMIDT BROS. & HILL, of Superior, Wis. No. 2 is the center dock at Allouez. Estimated cost, $300,000. The Great Northern Ry. Co. will erect a new ore dock at Allouez during the fall and winter of 1910 which is to be ready for business at the opening of navigation in 1911.

TILE DRAIN.—Hammond, Ill.—Bids are asked until 2 p. m., Dec. 30, by the Drainage Commissioners of Union Drainage District for construction of a main tile drain and surface drain. There will be 11,773 cu. yds. of excavation. The main line drain will consist of 8,100 ft. of 30-in. tile, 1,500 ft. of 27-in. tile, 2,600 ft. of 24-in. tile, 2,700 ft. of 20-in. tile, and 2,700 ft. of 18-in. tile, inside diameter salt glazed vitrified tile.

TORPEDO BOATS.—Washington, D. C.—Bids will be received by the Navy Department until noon, Feb. 15, for constructing by contract four submarine torpedo boats (Nos. 28-31). A circular defining the chief characteristics of these vessels is now ready for distribution among prospective bidders. Forms of proposal and contract may be had on application to the department after Jan. 3, 1910. Beekman Winthrop, Acting Secy.

EMBANKMENT.—Hammonton, Cal.—Bids were received on Dec. 1 by the California Debris Commissioner, San Francisco, for placing about 40,000 cu. yds. embankment at the settling basin on the Yuba River near Hammonton. Bids will be rejected. It is probable that the work will be done by force account. The lowest bidders were J. H. Laugenowe and Asa Kalfsbeck, College City and Arbuckle, Cal., respectively, $11,800.

FURNACE.—Sharon, Pa.—The Sharon Foundry Co. has awarded the contract to ALEX. LAUGHLIN & CO., Lewis Block, Pittsburg, for the erection of an additional open-hearth furnace at the Wheatland plant of the company to cost about $12,000. Work will be started at once and it will be completed within the next three months. The new furnace will be of 20 tons capacity and will alternate with the one now in operation.

RAILWAY EXTENSION.—Vallejo, Cal.—Bids were received as follows on Dec. 18 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of a railway extension at the Mare Island Navy Yard: E. D. Crowley Co., 127 Montgomery St., San Francisco, $10,345; American Construction Co., 359 Monadnock Bldg., San Francisco, $10,633, $9,695, on bidder's specifications; G. & W. Mfg. Co., 26 Cortlandt St., New York, $9,743 (90 days).

SHED.—Superior, Wis.—Contract for the construction of one of the merchandise sheds to be erected on the "Soo" docks on Connors Point has been let to McLEOD & SMITH, of Duluth, Minn. There will be two merchandise sheds on the docks, but only one of them will be constructed this season. It is also the intention to have a large number of tracks laid in the yards on the point. Contract for the docks was awarded to WHITNEY BROS., of Superior, and the docks are now nearing completion.

PIER IMPROVEMENTS.—Boston, Mass.—Bids were received as follows on Dec. 18 at the office of the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for improvements to Pier No. 1, at the Boston Navy Yard: Schwiers & Sutton Co., 90 West St., New York, (1) $20,796, (2) $2,875, (3) $6,900, (4) $11,100; William H. Ellis, 18 Tremont St., Boston, Mass., (1) $41,674, (2) $8,850, (3) $17,929, (4) $26,841; C. M. Leach, Box 2285, Boston, Mass., (1) $27,941, (2) $5,000, (3) $10,000, (4) $15,000.

FIRE HOSE AND APPARATUS.—New York, N. Y.—Bids are asked by the Fire Department until 10.30 a. m., Dec. 30, for furnishing and delivering 10,000 ft. of 3-in. rubber fire hose for Boros. of Manhattan, The Bronx and Richmond; for furnishing and delivering 15,000 ft. of 2½-in. cotton rubber lined fire hose for Boros. of Brooklyn and Queens; for furnishing and delivering one gasoline fire engine for Boro. of Queens; for furnishing and delivering one 65-ft. water tower for Boro. of Manhattan.

REPAIRING FERRYBOATS.—New York, N. Y.—Bids were received as follows by the Department of Docks and Ferries on Dec. 20, Contract No. 1210, for furnishing all the labor and materials required for repairing the municipal feryboats or other floating ferry property, and furnishing and delivering supplies therefor: Myers-Payne Co., 130 Front St., $17,788; Morse Dry Dock & Repair Co., 17 State St., $16,494; James Schewan & Son, foot Houston St., East River, $23,698; John W. Sullivan Co., 827 East Ninth St., $27,177; James Tregarthen Son & Co., foot Seventh St., East River, $61,272.

*PUBLIC HEARING ON HARBOR LINES.—New York, N. Y.—There will be a public hearing by New York Harbor Line Board in Army Building, 39 Whitehall St., New York, 11 a. m., Jan. 5, on application of Riparian Commission of New Jersey for harbor lines on Shrewsbury River between Seabright Bridge and pier at Normandie Station on N. J. & Southern R. R., and about noon of same date on application of H. C. Brown & Sons for extension of harbor lines in front of their property at Tottenville, N. Y. Interested parties are invited to attend. Col. Wm. T. Rossell, U. S. Engrs., Senior Member.

(Continued on page 225.)

CONTRACT PRICES.

(* *denotes that this work is advertised in Engineering News.*)

*RESERVOIR, SIPHONS.—New York, N. Y.—Bids in detail were received as follows by the Board of Water Supply, J. Waldo Smith, Ch. Engr., on Dec. 8, for Contract 30 for construction of Hill View reservoir and appurtenances, and portions of the Yonkers and Van Cortlandt siphons of Catskill aqueduct: (A) MILLARD CONSTRUCTION CO., Pennsylvania Bldg., Philadelphia, Pa. (awarded contract); (B) the Elmore & Hamilton Contracting Co., Albany; (C) George W. Rogers Co., 29 Broadway, New York; (D) T. A. Gillespie Co., 90 West St., New York; (E) Foye-Root Co., 20 Broad St., New York; (F) American Pipe & Construction Co., 112 North Broad St., Philadelphia, Pa.; (G) J. F. Cogan, of Brewster, N. Y.:

		(A)	(B)	(C)	(D)	(E)	(F)	(G)
115	lin. ft. shafts in earth	$250.00	$200.00	$200.00	$300.00	$300.00	$300.00	$300.00
4,700	cu. yds. rock excavation in shafts	16.00	14.00	20.60	20.00	15.00	20.00	25.00
39,500	cu. yds. excavation in tunnels	6.20	5.90	8.00	7.00	5.50	9.00	5.00
100	sq. yds. additional trimming in shafts and tunnels	8.00	3.00	8.00	6.00	6.00	10.00	10.00
166,000	lbs. furnishing structural steel roof support	.03	.04	.04	.04	.04	.03	.06
166,000	lbs. erecting structural steel roof support	.01½	.01	.01	.03	.03	.01	.02
20	M. ft. B. M. temporary timbering in tunnels	55.00	60.00	70.00	80.00	80.00	70.00	50.00
40,000	mil. ft. gal. pumping from shafts and tunnels during construction	.20	.30	.20	.30	.40	.30	.30
3,430	lin. ft. drainage channels for shafts & tunnels	2.00	1.75	2.00	1.50	2.00	4.00	2.00
435	lin. ft. forms for lining shafts	8.00	6.50	8.00	5.50	7.00	10.00	10.00
2,970	lin. ft. forms for lining tunnels	3.00	2.90	5.00	4.00	3.50	10.00	3.50
2,400	cu. yds. concrete masonry in shafts	6.50	7.00	7.00	7.00	9.00	6.00	7.00
14,400	cu. yds. concrete masonry in tunnels	6.00	5.50	7.00	6.00	6.00	6.00	6.00
700	cu. yds. excess concrete masonry in shafts and tunnels	3,00	3.00	3.00	3.00	3.00	3.00	3.00
100	cu. yds. brick masonry in shafts and tunnels	16.00	14.00	15.00	11.00	20.00	20.00	20.00
850	cu. yds. dry packing in tunnels	2.50	2.00	3.50	2.50	3.00	2.50	2.00
400	lin. ft. drilling 1½″ or smaller holes in rock or masonry	.40	.40	1.00	.25	.60	.50	.50
400	lin. ft. drilling 1¾″ to 2½″ holes in rock or masonry	.50	.45	1.00	.30	1.00	.60	.60
6,000	lin. ft. steel pipe for grouting, etc	.25	.20	.40	.20	.40	.30	.25
	Miscellaneous plant and equipment for grouting (lump sum)	1,500.00	2,500.00	1,000.00	2,000.00	5,000.00	7,500.00	1,000.00
2	high-pressure air-compressors for grouting	300.00	250.00	250.00	250.00	300.00	500.00	300.00
4	tank grouting machines	300.00	200.00	250.00	300.00	250.00	450.00	200.00
10	grouting pads	70.00	60.00	70.00	80.00	75.00	100.00	60.00
	Making 900 connections of tank grouting machines to grout pipes	1.00	.60	.50	1.00	1.00	3.00	.50
	Setting 300 grouting pads	2.00	1.00	1.00	2.00	2.00	3.00	1.50
350	tons sand for grout	2.00	1.50	2.00	2.00	2.00	3.00	2.00
500	cu. yds. mixing and placing grout	5.00	3.75	4.00	3.50	5.00	5.00	6.00
163	acres clearing and grubbing	50.00	200.00	300.00	200.00	250.00	200.00	200.00
250,000	cu. yds. removal of top-soil	.40	.40	.40	1.00	.80	.45	1.00
10,000	cu. yds. trench excavation	.60	.90	1.50	.75	1.00	3.00	2.00
2,900,000	cu. yds. all ordered excav. in open cut, except under Items 29 and 30	.28	.32	.40	.40	.35	.40	.35
1,250,000	cu. yds. special impervious refilling and embanking	.20	.20	.30	.10	.35	.20	.40
1,500,000	cu. yds. all ordered refilling and embank., except under Items 32 and 34	.10	.14	.10	.07	.15	.05	.05
90,000	cu. yds. surface dressing and grassing	.50	.60	.50	.60	.60	.50	.60
215,000	bbls. Portland cement	1.60	1.55	1.50	1.70	1.50	2.00	1.30
35,000	lbs. sulph. of alumina for waterproofing concrete, mortar or grout	.02	.02	.03	.02	.03	.03	.04
60,000	cu. yds. concrete in reservoir lining	4.70	5.25	4.50	5.85	4.60	5.00	5.00
75,000	cu. yds. concrete in walls, chambers, etc	4.70	6.00	5.50	5.50	5.60	6.00	5.50
500	cu. yds. reinforced concrete	10.00	10.00	20.00	9.00	15.00	12.00	15.00
1,000	lin. ft. reinforced concrete ladders	3.00	3.00	2.00	2.00	3.00	4.00	3.00
100	cu. yds. brick masonry not in tunnel	12.00	14.00	15.00	11.00	15.00	15.00	15.00
1,000	cu. yds. rubble masonry and paving in mortar	4.80	4.00	4.75	3.50	5.00	4.00	3.50
20,000	cu. yds. dry rubble masonry and paving	4.50	2.50	3.50	4.00	3.00	3.00	3.00
27,000	cu. yds. riprap	2.50	2.00	.60	2.50	1.50	2.50	2.00
7,000	cu. yds. crushed stone and gravel	2.00	1.50	1.50	1.50	1.50	2.00	1.50
40,000	sq. yds. placing and rolling macadam surfacing	.50	.25	.30	.25	.25	.25	.10
2,000	cu. yds. telford base	2.50	1.50	1.50	2.50	2.50	2.00	2.00
70	tons cast-iron pipe and special pipe castings	100.00	80.00	100.00	80.00	90.00	100.00	90.00
80,000	lbs. steel for reinforcing concrete	.03	.04	.04	.03	.05	.05	.05
900,000	lbs. miscel. cast iron, wrought iron and steel	.08	.06	.05	.07	.05	.06	.06
35,000	lbs. bronze	.80	.45	.50	.70	.50	.60	.70
600,000	lbs. caring for and setting metal-work furnished by the city	.05	.02	.01	.04	.02	.02	.04
15	plug valves	25.00	120.00	5.00	50.00	125.00	75.00	20.00
15,000	lin. ft. wire fence	.60	.38	.30	.25	.40	.40	.40
50,000	lbs. galvanizing	.04	.04	.02	.05	.05	.02	.05
1,500	lin. ft. vitrified pipe 10″ or less in diameter	.60	.60	.50	.35	.90	.75	.50
5,000	lin. ft. vitrified pipe larger than 10″ and not over 18″ diameter	1.30	1.00	1.00	.70	1.50	1.50	1.00
100	M. ft. B. M. timber and lumber not in tunnel	40.00	50.00	50.00	60.00	60.00	100.00	40.00
25	M. ft. B. M. stop-planks	80.00	100.00	80.00	100.00	125.00	100.00	100.00
2	locker houses	1,500.00	1,250.00	1,500.00	1,250.00	1,500.00	2,500.00	2,500.00
	Moving Hammond house (lump sum)	2,000.00	800.00	1,000.00	1,000.00	1,200.00	1,500.00	2,000.00
	Sanitary service (76 months)	400.00	300.00	300.00	250.00	500.00	50.00	200.00
	Clearing up (lump sum)	5,000.00	4,000.00	1,000.00	10,000.00	1,000.00	2,000.00	1,000.00
	Total	$3,269,280	$3,438,473	$3,765,440	$3,788,058	$3,803,260	$3,877,225	$4,341,975

Bond required, $700,000. Time, 76 months.

PAVING.—Seattle, Wash.—On Dec. 3, the following itemized bids were received by the Board of Public Works for paving Jackson St., etc., from (A) Paul Steenstrup, Seattle; (B) the Coast Concrete Co., Seattle; (C) S. Normile, Seattle; (D) MACADAM & CO., Seattle (awarded contract):

	(A)	(B)	(C)	(D)
Clearing and grubbing (lump sum)	$1,000.00	$500.00	$300.00	$500.00
8,500 cu. yds. sub grading	.60	.65	.60	.43
8,070 lin. ft. curbing, straight granite	1.55	1.60	1.60	1.43
413 lin. ft. curbing, curved granite	1.80	2.00	2.00	1.73
44 lin. ft. curbing, curved and straight granite, reset.	2.00	1.00	.80	.60
21,167 sq. yds. brick paving	2.65	2.60	2.65	2.54
25 sq. yds. granite paving	3.80	3.90	4.00	4.00
242 sq. yds. alley crossings, brick	2.80	2.70	2.65	2.54
5,600 sq. yds. gravel base, 4 ins. thick	.25	.18	.18	.15
670 sq. yds. concrete sidewalks	1.20	1.00	1.00	1.00
677 lin. ft. wood stops	.30	.40	.45	.40
6 monument cases	8.00	10.00	10.00	10.00
4 catch basins, single inlet	65.00	65.00	70.00	65.00
2 catch basins, double inlet	75.00	75.00	80.00	70.00
1 catch basin moved	40.00	25.00	20.00	45.00
34 single inlets to be set	6.00	5.00	4.00	6.00
8 single inlets moved	8.00	5.00	6.00	6.00
23 catch basins and manhole covers adjusted	10.00	5.00	3.00	2.50
2,000 lin. ft. 3-in. tile drain	.15	.15	.20	.20
25 M. ft. B. M. new lumber	20.00	17.00	21.00	18.00
20 M. ft. B. M. old lumber	10.00	5.00	7.00	6.00
17 brick gate chambers	40.00	35.00	38.00	55.00
110 lin. ft. 8-in. pipe sewer	1.70	1.65	1.30	1.45
110 lin. ft. 10-in. pipe sewer	2.00	1.90	1.60	1.63
4 3½-ft. manholes	70.00	80.00	70.00	70.00
426 lin. ft. 6-in. side sewer connections	1.20	1.50	1.00	1.25
912 30-in. c.-i. pipe "A" to be laid only	3.00	2.60	5.50	1.50
1,500 lin. ft. 12-in. c.-i. pipe "A"	2.40	2.35	2.25	2.27
72 lin. ft. 12-in. c.-i. pipe "B"	2.60	2.50	2.50	2.55
2 12-in. gate valves	60.00	45.00	40.00	45.00
5 hydrants, 8-in. connections	100.00	75.00	121.35	95.00
8 hydrants, 6-in. connections	70.00	70.00	80.00	65.00
144 lin. ft. 8-in. c.-i. pipe "A" hydrant connections	1.50	1.30	1.35	1.23
192 lin. ft. 6-in. c.-i pipe "A" hydrant connections	1.30	1.25	1.20	1.15
450 lin. ft. ¾-in. galvanized pipe, hydrant drains	.50	.25	.35	.25
2,500 lbs. special castings	.10	.07	.08	.06
600 lbs. shackle rods	.10	.06	.08	.06
4 cu. yds. concrete	10.00	10.00	8.00	8.00
5 cu. yds. extra excavation	2.00	1.00	1.00	.75
Totals	$94,140	$91,777	$94,994	$86,067

*SIPHONS, ETC.—New York, N. Y.—Bids were received by the Board of Water Supply on Dec. 2, for Contract 62, for the construction of seven steel pipe siphons; also several stretches of aqueduct in open cut and on embankment, or cut-and-cover aqueduct aggregating about 3,000 ft. The work is located in the towns of Olive, Ulster County; New Windsor, Orange County; Philipstown, Putnam County; and Cortlandt, Westchester County. J. Waldo Smith is Ch. Engr. Bids in detail were as follows: (A) The SNARE & TRIEST CO., 143 Liberty St., New York (awarded contract); (B) the American Pipe & Construction Co., 112 North Broad St., Philadelphia; (C) the F. V. Smith Contracting Co., 125th St. and Lexington Ave., New York; (D) the East Jersey Pipe Co., 90 West St., New York; (E) the Pittsburg Contracting Co., 1942 Forbes St., Pittsburg, Pa.:

	(A)	(B)	(C)	(D)	(E)
38,500 cu. yds. removal of soil	$0.50	$0.60	$0.40	$0.45	$0.40
12,500 cu. yds. earth excavation at Esopus siphon	.50	.60	1.00	1.30	.90
7,000 cu. yds. earth excavation at Tongore siphon	.50	.60	1.00	1.43	1.25
28,000 cu. yds. earth excavation at Washington Square siphon	.50	.60	1.00	.78	.70
82,000 cu. yds. earth excavation at Foundry Brook siphon	.50	.60	1.00	.91	.90
26,500 cu. yds. earth excavation at Indian Brook siphon	.50	.60	1.00	1.17	1.25
16,500 cu. yds. earth excavation at Sprout Brook siphon	.50	.60	1.00	1.17	.90
55,000 cu. yds. earth excavation at Peekskill siphon	.50	.60	.80	.91	.70
7,000 cu. yds. rock excavation	2.50	3.00	4.50	2.90	2.00
20,500 cu. yds. refilling and embanking at Esopus siphon	.40	.40	.40	.58	.40
14,500 cu. yds. refilling and embanking at Tongore siphon	.40	.40	.40	.58	.50
31,000 cu. yds. refilling and embanking at Washington Square siphon	.35	.40	.40	.52	.40
60,000 cu. yds. refilling and embanking at Foundry Brook siphon	.40	.40	.30	.52	.50
23,000 cu. yds. refilling and embanking at Indian Brook siphon	.40	.40	.40	.58	.50
24,000 cu. yds. refilling and embanking at Sprout Brook siphon	.40	.40	.40	.58	.50
54,000 cu. yds. refilling and embanking at Peekskill siphon	.35	.40	.30	.52	.40
Control of streams (lump sum)	2,500.00	7.500.00	5,000.00	6,500.00	10,000.00
34,000 cu. yds. surface dressing and grassing	.40	.50	.50	.65	.40
13,355 lin. ft. 9-ft. 6-in. steel pipe, 7-16-in. plate, lap-jointed	31.00	39.00	30.00	35.00	42.50
625 lin. ft. 9-ft. 6-in. steel pipe, ½-in. plate, lap-jointed	35.00	45.00	40.00	40.00	46.00
2,295 lin. ft. 9-ft. 6-in. steel pipe, ½-in. plate, long. seams butt-jointed	40.00	47.00	46.00	42.00	49.00
1,930 lin. ft. 9-ft. 6-in. steel pipe, 9-16-in. plate, long. seams butt-jointed	43.00	52.00	50.00	47.00	52.00
1,025 lin. ft. 9-ft. 6-in. steel pipe, 11-16-in. plate, long. seams butt-jointed	47.00	66.00	55.00	54.00	57.00
140 lin. ft. 9-ft. 6-in. steel pipe, ¾-in. plate, long. seams butt-jointed	50.00	70.00	60.00	58.00	60.00
60,000 lbs. steel castings	.10	.09	.12	.12	.10
19,400 lin. ft. mortar lining for steel pipes	2,50	2.00	6.00	7.50	6.50
300,000 sq. ft. reinforcement of mortar lining for steel pipes	.02	.03	.05	.04	.02
33,000 cu. yds. concrete masonry around steel pipes	6.00	5.25	6.00	6.00	6.00
17,000 cu. yds. concrete masonry for cut-and-cover aqueduct	6.30	5.25	6.75	6.50	6.00
15,200 cu. yds. concrete masonry for siphon, blow-off chambers, etc	6.50	7.00	10.00	11.00	10.00
2,300 cu. yds. reinforced concrete	8.00	8.00	10.00	15.00	10.00
263,000 lbs. steel for reinforcing concrete	.03	.04	.03½	.03½	.03
1,000 cu. yds. dry rubble for masonry and paving	3.50	4.00	3.00	2.50	3.00
700 cu. yds. rubble masonry and paving in mortar	4.50	5.00	5.00	3.00	1.00
96,000 bbls. Portland cement	1.75	2.00	1.85	1.60	1.50
400 cu. yds, surfacing macadam roads	3.00	5.00	4.00	4.00	1.00
200 cu. yds. crushed stone and gravel	2.00	3.00	3.00	2.00	3.00
5,000 lin. ft. vitrified pipe, 12 ins. and less in diameter	1.00	.75	1.50	.40	1.00
150 lin. ft. vitrified pipe, 24 ins. in diameter	3.00	3.00	4.00	1.50	1.00
300 tons cast-iron pipe and special pipe castings	60.00	90.00	85.00	70.00	100.00
7 sluice gates	70.00	100.00	150.00	50.00	100.00
23,000 lbs. caring for and setting metal work furnished by the city	.02	.05	.02	.05	.02
16,000 lbs. miscellaneous cast iron, wrought iron and steel	.08	.10	.08	.06	.10
2,000 lbs. galvanizing	.05	.02	.05	.10	.05
22,000 lbs. bronze pipe and miscellaneous bronze	.50	.70	.80	.80	.80
50 M. ft. B.M. timber and lumber	60.00	50.00	50.00	50.00	80.00
3,000 lin. ft. stone boundary walls	1.20	1.25	.90	.90	1.25
7,000 lin. ft. fences and guard-rails	.35	.30	.40	.25	.40
300 lin. ft. reinforced-concrete ladders	2.00	4.00	20.00	3.00	2.00
Testing 5 portions of cut-and-cover aqueduct	1,000.00	500.00	1,100.00	1,000.00	250.00
1,000 lin. ft. of exc. testing portions of cut-and-cover aqueduct exceeding 200 ft.	2.00	2.00	2.00	2.00	5.00
Cleaning up (lump sum)	4,000.00	3,500.00	1,000.00	5,000.00	5,000.00
	$1,643,365	$1,851,305	$1,955,420	$2,062,900	$2,081,702

Bond required, $400,000. Time, 36 months.

MISCELLANEOUS.

(Continued from page 224.)

DRAINAGE DITCHES.—St. Paul, Minn.—The State Drainage Commission, S. G. Iverson, State Audr., will receive bids until 2 p. m., Jan. 6, for the construction of the following drainage ditches: Roseau County, Ditch No. 69, containing 677,755 cu. yds.; estimated cost, $70,000. Roseau and Kittson County Ditch No. 72, containing 687,938 cu. yds.; estimated cost, $75,000. Kittson County, Ditch No. 84, containing 301,217 cu. yds.; estimated cost, $40,000. Aitkin County, Ditch No. 88, containing 599,966 cu. yds.; estimated cost, $53,000.

PIER.—New York, N. Y.—Bids were received as follows by the Department of Docks and Ferries on Dec. 13 on Contract No. 1202, for furnishing all the labor and materials required for preparing for and building a new pier at the foot of 33d St., Boro. of Brooklyn, to be known as the 33d St. pier. Allen N. Spooner, Comr.: H. R. Wheeler, 17 Battery Pl., $236,500; Northeastern Construction Co., 225 Fifth Ave., $263,580; Phoenix Construction Co., 13 Park Row, $254,897; Wm. H. Jenks, 59 Pearl St., $272,992; E. DeV. Tompkins, $244,587; George B. Spearin, 90 West St., $246,332; Newman & Carey Co., 215 Montague St., Brooklyn, $339,000.

BATHING BEACHES.—Chicago, Ill.—Plans for six public bathing beaches, accompanied by an exhaustive report from John Ericson, City Engr., have been received by Alderman Theodore K. Long, Chn. of the special council committee on bathing beaches and recreation piers. The beaches planned, which are to be made available for use next season, are as follows: Montrose Ave., at a cost of $22,000 by the city. Diversey Boulevard by the Lincoln Park Commissioners. 22d St., beach and crescent-shaped pier, at a cost of $50,000 by the city. 51st St., beach and island on Morgan reef, to cost $50,000 by the city. Jackson Park, beach north of the yacht harbor, by the South Park commissioners. 79th St., rehabilitation of existing beach by the city. More money than that specified in the estimated cost will be needed to put the various beaches in condition. The cost named is merely for installation.

PUBLIC WORKS.—Ottawa, Ont.—The estimates of the Department of Public Works (Napoleon Tessier, Secy.) for the ensuing fiscal year for general public works are as follows: Dredging—Dredge vessel repairs, $160,000; new dredging plant: Maritime Provinces, $180,000; Ontario and Quebec, $135,000; Manitoba, $13,000; Saskatchewan and Alberta, $65,000; British Columbia, $160,000; generally, $340,000. Dredging: Maritime Provinces, $675,000; Quebec and Ontario, $675,000; Manitoba, $35,000; British Columbia, $225,000; general service, $5,000.

Slides and Booms—Saguenay District, new booms, alligator tug and additional equipment, $10,000; St. Maurice District, improvements to slide and boom works to facilitate the floating and storage of logs, etc., $40,000; North Saskatchewan River, booms and log storage works, $15,000; slides and booms, generally, $5,000.

Telegraph Lines—Maritime Provinces, Cape Breton telegraph lines.

Quebec—Telegraph lines on north shore and islands of Lower St. Lawrence, etc.—Improvement of repair service, $3,000; Murray Bay and St. Catharine's bay section, north shore, Lower St. Lawrence, partial re-poling and general overhauling of line, $3,600; Tadousac, Bersimis section, north shore, St. Lawrence, partial re-poling and general overhauling of line, $4,500.

Alberta and Saskatchewan—Edmonton-Athabaska telegraph line, extension from Athabasca landing towards Peace River landing, via south side of Lesser Slave Lake, $21,000; Moosejaw, Wood Mountain line, branch from Limerick to Gravelburg, $5,000; Kamsack, Indian Agency telephone line, extension to Fort Pelly and Keys Reserve, $2,350; Qu'Appelle-Edmonton telegraph line, reconstruction of Lloydminster loop line shifted to roadway reservations, to complete, $2,000.

British Columbia—North Thompson Valley line, land line Kamloops to Fennels, $4,500; Kamloops-Okanagan Valley telephone line, additional wiring between Kelowna and Penticton and overhauling and strengthening line, $7,600; Alberni-Clayoquot telegraph line, part renewal of poles and general overhauling, $2,000; Victoria-Cape Beale telegraph line, part renewal of poles and wiring, $7,500; Kamloops-Okanagan Valley telephone line, telephone exchange at Merritt for Middleboro', Coutlee, etc., $2,365.

Yukon System—Ashcroft, Dawson main line, general repairs to train, renewal of bridges, etc., between Hazelton and Ninth Cabin and between Echo Lake and Twenty-fifth Mile Cabin, $3,500; general repairs and overhauling of telegraph line between Quesnel and Hazelton, $3,500.

Authorized by Statute—Halifax Graving Dock, $10,000; Collingwood Dry Dock, $15,000.

EXAMINATIONS.

STEAM ENGINEER.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Jan. 5, 1910, to secure eligibles from which to make certification to fill a vacany in the position of Engineer, $1,600 a year, in the National Museum, Washington, D. C., and vacancies requiring similar qualification as they may occur, unless it shall be decided in the interests of the service to fill the vacancy mentioned by promotion, reinstatement or transfer. Age limit; 20 to 40 years. Application form 1312.

JUNIOR CHEMIST.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Jan. 5-6, 1910, to secure eligibles from which to make certification to fill vacancies as they may occur in the position of Junior Structural-Materials Chemist in the Geological Survey at salaries ranging from $960 to $1,380 a year. Age limit, 21 years. Application form 1312.

APICULTURAL ASSISTANT.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Jan. 19-20, to secure eligibles from which to make certification to fill vacancies as they may occur in the position of Apicultural Assistant, Bureau of Entomology, Dept. of Agriculture, at salaries ranging from $840 to $2,500 a year. Age limit, 20 years. Application form 1312. Applications must be filed prior to closing hour on Jan. 8.

JUNIOR ENGINEER DRAFTSMAN.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Jan. 5, 1910, to secure eligibles from which to make certification to fill vacancies as they may occur in the position of Junior Engineer Draftsman, Engineer Department at Large, at salaries ranging from $1,000 to $1,500 a year, according to qualifications. Age limit, 18 years. Application form 1312. Applications must be filed prior to closing hour on Dec. 24.

MECHANICIAN.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Jan. 5, 1910, to secure eligibles from which to make certification to fill a vacancy in the position of Mechanician with practical experience in instrument making, at $1,000 a year, in the Bureau of Standards, Dept. of Commerce and Labor, and vacancie srequiring similar qualifications as they may occur, unless it shall be decided in the interests of the service to fill the vacancy mentioned by reinstatement, transfer, or promotion. Age limit, 20 years. Application form 1800.

SENIOR MECHANICAL DRAFTSMAN.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Jan. 5, 6, 7, 1910, to secure eligibles from which to make certification to fill a vacancy in the position of Senior Draftsman in the Ordnance Bureau, Washington, D. C., and vacancies requiring similar qualifications as they may occur in the Ordnance Dept. at large throughout the United States, at salaries ranging from $1,600 to $1,800 a year, unless it shall be decided in the interests of the service to fill the vacancy mentioned by reinstatement, transfer, or promotion. Age limit, 18 years. Application form 1312. Applications must be filed prior to closing hour on Dec. 27.

ENGINEER IN WOOD PRESERVATION.—Denver, Colo.—The U. S. Civil Service Commission announces an examination on Jan. 19, to secure eligibles from which to make certification to fill two vacancies in the position of Engineer in Wood Preservation, one at $1,000 and the other at $1,300 a year, Forest Service, for duty in District No. 2, with headquarters at Denver, Colo., and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interests of the service to fill either or both of the vacancies by reinstatement, transfer, or promotion. Age limit, 22 to 40 years. Application form 1312. Applications must be filed prior to closing hour on Jan. 8.

INSPECTOR.—New York, N. Y.—Applications will be received by the Municipal Civil Service Commission, 299 Broadway, until 4 p. m., Dec. 30 (extension of time from Dec. 7) for the position of Inspector, Board of Water Supply. The examination will be held on Jan. 12, at 10 a. m. No application received by the Commission, by mail or otherwise, after 4 p. m., Dec. 30, will be accepted. Candidates should be active, energetic men in sound health. They will be required to pass a physical examination. Graduates of technical schools of recognized standing are desired. Assignments will be made from this list to any part of the State, and appointees are expected to live near their work. The examination will be largely on general engineering lines, but the knowledge of candidates in question respecting the construction of works for the storage and distribution of water will also be tested. The salary is $4.50 to $5 per day. The minimum age is 22 years.

ASSISTANT CHEMIST.—Washington, D. C. The U. S. Civil Service Commission announces an examination on Jan. 19-20, to secure eligibles from which to make certification to fill vacancies in the position of Assistant Chemist, at salaries from $1,200 to $1,600 a year, as they may occur in the Bureau of Chemistry, Dept. of Agriculture. The usual entrance salary is $1,200, and only in exceptional cases of unusual qualifications, including considerable valuable experience, will a higher salary than $1,200 be paid. It is stated by the Department that men experienced in tannery chemistry and paper-making chemistry and in the chemistry of india rubber will probably be needed in the near future. Applicants having experience along these lines are therefore requested to set forth fully such experience in their applications. Both men and women will be admitted to this examination. Age limit, 20 years. Application form 1312. Applications must be filed prior to closing hour on Jan. 8.

ENGINEER-PHYSICIST.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Jan. 12, to secure eligibles from which to make certification to fill vacancies as they may occur in the position of Engineer-Physicist at $3,000 a year or Associate Engineer-Physicist at $2,000 to $2,500 a year, in the Bureau of Standards. It is desired to secure persons who are fully able to initiate and carry on independent research in the field of engineering physics. They should have training and experience in the inspection and testing of engineering and structural materials, the operation of testing machines, and the interpretation of the results of investigations. There will be no educational examination for these positions, but it is essential that applicants should have made and published some contributions of recognized merit in engineering knowledge. Applicants should submit the titles of all papers they may have published and give references to the original source of publication. Age limit, 25 years. Application form 1312. Applications must be filed prior to closing hour on Jan. 12.

INDUSTRIAL NOTES.

THE BROWNING MANUFACTURING CO., Cleveland, Ohio, are completing the erection of a double boom, 100 ft. radius excavator, at Lockport, N. Y., for the United Engineering & Contracting Co. This is the second big machine for work on the New York Barge Canal and two more 1½-yd. machines with 60 ft. and 75 ft. booms are being built at their shops at Mansfield, Ohio, for canal contractors.

THE OHIO STEAM SHOVEL CO., formerly of Toledo, Ohio, has been purchased by Cincinnati capitalists and the entire plant, including all patterns, drawings, material, etc., removed to Cincinnati, Ohio. All inquiries, orders for repair parts, etc., for Ohio steam shovels should hereafter be addressed to the Ohio Steam Shovel & Dredge Co., Cincinnati, Ohio. The company is prepared to make immediate delivery of their 30-ton steam shovel, mounted on either traction wheels or standard railway trucks, also of their 45-50-ton boom pattern, 3-engine, 54-in. horizontal boiler Ohio shovel, and they advise that they can deliver their 70-ton boom machine in 30 days. The business is being handled by F. A. Peckham and H. L. Hoeffer, both of Cincinnati, Ohio; P. B. Warner, 916-17 Pennsylvania Bldg., Philadelphia, Pa., and Earle J. Banta, M. E., who has been Mechanical Engineer of the Panama Canal for several years, is Chief Engineer of this company and in full charge of the designing and shop production department.

LIST OF CONTRACTS PENDING.

Light, Heat and Power Plants.

12-27	Light system, Fort Washington, Md.	12- 9
12-29	Dynamo, etc., Norristown, Pa.	12-16
12-30	Elec. light fixtures, New York	12-23
1- 3	Electric work, etc., Portland, Me.	12-23
1- 4	Elec. & Gas fixtures, eNw York	12-23
1-21	Remodeling power plant, Washington, D. C.	12-23

Bridges.

12-27	Bridges, Wichita, Kan	12-16
12-27	Bridge work, Richmond, Ind	12-23
12-28	Bridge, Hebron, Neb	12- 9
12-29	Bridge, Fort Lawton, Wash	12-23
12-29*	Bridge, Rye, N. Y	12-23
12-30	Bridge, Traffic, Va	12-23
12-30	Bridge work, Winnipeg, Man	12-23
12-30	Bridge repairs, etc., New York	12-16
12-31*	Bridge, Woonsocket, R. I.	12-23
1-24*	Bridge, Monroeville, Ohio	12-23
1- 3	Bridges, Stockton, Cal	12-23
1- 3	Bridge work, St. Clairsville, Ohio	12-23
1- 4*	Bridge, Cohoes, N. Y	12-16
1- 4*	Bridge, Merced, Cal	11-25
1- 7	Abutment repair, Cincinnati, O.	12-16
1-11	Bridges, York, Neb	12- 9
1-12	Bridges, Grand Island, Neb	12-23
1-14	Bridge, Cincinnati, Ohio	12-23
1-15	Bridge, Florence, Ariz	12-16
1-15	Bridge, Dallas, Tex	12-16
1-18*	Superstructure, Winnipeg, Man.	12-16

Buildings.

12-24	Tile work, Vallejo, Cal	11-25
12-24	Building, Washington, D. C.	12- 2
12-27	Hospital, New York	12-16
12-27	Schools, New York	12-16
12-28*	Post-office, Athens, Ohio	11-18
12-29*	Heating, Denison, Tex	11-25
12-29	Plumbing, etc., Denison, Tex	11-25
12-29	Post-office, Beatrice, Neb	11-25
12-30	Shed, Ft. Riley, Kan	12- 9
12-30	Library equip., New York	12-16
12-31	Building, Vallejo, Cal	12- 2
1- 2	Plans, etc., Phoenix, Ariz	12-16
1- 3	Plumbing, etc., Portland, Me.	12-23
1- 3	Schools, New York	12-23
1- 3	Buildings, Mont Alto, Pa	12-23
1- 6	Post-office, Trenton, N. J.	12- 2
1- 8	Buildings, Columbus, Ohio	12-23
1-10*	Post-office, Lima, Ohio	12- 2
1-10*	Storehouse, Ft. Monroe, Va.	12- 9
1-10	Stable, Ft. Mackenzie, Wyo.	12-16
2-10*	Post-office Lynchburg, Va.	12-23
1-11	Post-office, Chester, Pa	12- 9
1-12*	Post-office, etc., Bristol, Tenn.	12- 2
1-13*	Post-office, Manchester, N. H.	12- 9
1-14	Post-office, Emporia, Kan	21-23
1-15*	Buildings, Ft. Sill, Okla	12-23
1-17	State house, Dover, Del	12-23
1-17*	Post-office, Henderson, N. C.	12-16
1-25*	Post-office, Pawtucket, R. I.	12-23
2-14	Post-office, Lead, S. Dak	12-23

Water-Works.

12-24	Mains, New York	12-23
12-27	Canal, McCamman, Idaho	12-23
12-27	Water mains, Euclid, Ohio	12-23
12-28*	Engine-room, Detroit, Mich.	12- 2
12-29	Water supply, Philippines	11-18
12-29	Pumps, etc., Brooklyn, N. Y	12-23
12-31	Boilers, Chicago, Ill	12-23
1- 1	Water-works, Foley, Minn	11-11
1- 3	Water-works, Cathlamet, Wash.	12-16
1- 3	Repairing pump-house, Fort Robinson, Neb	12-23
1- 4	Tank, Dodgeville, Wis	12-23
1- 5*	Pipe, etc., Aberdeen, Wash	12-23
1- 6*	Hydrants, etc., Parkersburg, W. Va	12-23
1- 9	Headgate, Lamar, Colo	12-23
1-10	Water-works, Broken Arrow, Okla	12-23
1-11*	Aqueduct, New York	12-23
1-12	Filter house, Wilmington, N. C.	12-23
1-22*	Wells, etc., Jackson, Miss	12-16

Sewers.

12-24*	Sewer, Louisville, Ky.	12- 9
12-27*	Conduit, Lincoln, Neb	12-16
12-27	Sewer, Oklahoma City, Okla	12-23
12-28	Disposal plant, Alliance, Ohio	12-23
12-28	Sewers, Joplin, Mo	12-16
12-28*	Sewage disposal, Sea Girt, N. J.	12-16
12-29	Sewers, San Francisco, Cal	12-16
12-29	Sewer mains, Newburg, Ohio	12- 9
12-29	Sewers, Brooklyn, N. Y	12-23
12-30	Sewer, Dayton, Ohio	12-23
12-31*	Sewer, Louisville, Ky.	12- 9
1- 3	Sewer, Muskegon, Mich	12- 9
1- 3	Sewers, Lawrence, Kan	12-23
1- 5*	Sewage well, Batavia, N. Y	12-23
1- 5*	Sewage machinery, Detroit, Mich.	12- 9
1- 5	Sewage well, Batavia, N. Y	12-16
1-11*	Sewers, Denver, Colo	12-23
1-11*	Pipe sewers, Charleston, S. C.	12-23
1-12	Sewer, Holton, Kan	12-16
1-13	Sewers, Tracr. Iowa	12-16
1-19	Sewerage works, Prince Rupert, B. C.	12-23
2-15*	Sewer outlet, etc., Toronto, Ont.	12-23

Streets and Roads.

12-24*	Paving, sidewalks, Salt Lake City, Utah	12- 9
12-28	Street impvts., Covina, Cal	12-16
12-28	Street work, Dobbs Ferry, N. Y.	12-16
12-28	Road, Woodsfield, Ohio	12-23
12-29	Paving, etc., New York	12-16
12-29	Street impvt., Newburg, Ohio	12-16
12-30	Walks, New York	12-16
12-30	Paving, New York	12-23
1- 1	Road, May's Landing, N. J	12-23
1- 5*	Macadam, etc., Lenoir, N. C.	12- 9
1- 5*	Road, Jacksonville, Fla	12- 9
1- 8	Grading, Ft. Leavenworth, Kan.	12-23
1-10*	Paving, Elk City, Okla	12-23

Miscellaneous.

12-24*	Rollers, Jacksonville, Fla	12- 9
12-24	Cement, Los Angeles, Cal	12-23
12-27*	Lumber, Nashville, Tenn	11-25
12-28*	Barge canal, Albany, N. Y	12- 2
12-28	Bulkhead, New York	12-16
12-28	Pier extensions, New York	12-16
12-28	Cable, New York	12-16
12-28	Manual Transmitter, New York	12-16
12-28	Ditch, Madison, Minn	12-23
12-28	Hose wagons, etc., New York	12-23
12-29	Tank wagons, New York	12-23
12-29	Reconstructing ferryboat, New York	12-16
12-30	Ditch, Hamburg, Iowa	12- 2
12-30	Fire house, New York	12-23
12-30	Garden mould, New York	12-23
12-30	Dredging, New York	12-23
12-30	Fire apparatus, New York	12-23
12-30	Tile drain, Hammond, Ill	12-23
12-31	Patrol wagons, etc., New York	12-23
12-31	Snow removal (garbage), New	
12-31	Levee, Charleston, Mo	12-16
12-31	Posts, wire, fence, etc., Winnipeg, Man.	12-23
1- 1	Ditch, Frankfort, Ind	12-23
1- 3	Dredge, Panama	12- 2
1- 3	Garbage plant (Garbage), Portland, Ore.	12-23
1- 4*	Dredging, Michigan City, Ind.	12- 9
1- 4	Cement, riprap, etc., New York.	2-23
1- 5*	Floating dock, Vicksburg, Miss.	12- 2
1- 5*	Public hearing on harbor lines, New York	12-23
1- 6	Ditch, Forest City, Iowa	12-23
1- 6	Drainage ditches, St. Paul, Minn.	12-23
1- 8	Earth work, Ft. Leavenworth, Kan	12-23
1- 8	Dredging, quay walls, New York.	12- 9
1-15	Marine railway, Key West, Fla.	12-16
1-15	Tile drain, Boone, Iowa	12-23
1-17*	Irrigation work, Porto Rico	10-21
1-18	Dry dock, New York	10-21
1-27	Jetties, dikes, New York	12-23
2- 1	(1910) Monuments, Ottawa, Ont.	10-21
2-15	Torpedo boats, Washington, D. C.	12-23

Examinations.

12-29	Asst. and Teacher, Philippines	11-18
1- 5	Steam engr., Washington, D. C.	12-23
1- 5	Junior Engr. draftsman, Washington, D. C.	12-23
1- 5	Mechanician, Washington, D. C.	12-23
1- 5	Junior chemist, Washington, D.C.	12-23
1- 5	Senior mechanical draftsman, Washington, D. C.	12-23
1-12	Inspector, New York, N. Y	12-23
1-12	Engr.-Physicist, Washington, D. C.	12-23
1-19	Asst. Chemist, Washington, D. C.	12-23
1-19	Agricultural Asst., Wash., D. C.	12-23
1-19	Engr. in Wood Preservation, Denver, Colo.	12-23

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.	Work.	See issue.
12-24	Tile work (Bldgs.), Vallejo, Cal. (S.)	11-25
12-24	Building, Washington, D. C. (S)	12- 2
12-29	Dynamo, etc., Norristown, Pa. (S)	12-16
12-31	Building, Vallejo, Cal. (S.)	12- 2
1- 5*	Floating dock, Vicksburg, Miss. (S.)	12- 2
1-17*	Irrigation, Porto Rico. (P. & S.)	10-21
1-18*	Superstructure, Winnipeg, Man. (P. & S)	12-16

For other Proposal Advertisements see pages 51, 52, 53, 54, 56, of Advertisements and Construction News page 226.

BRIDGE.

Norwalk, Ohio.

Sealed proposals will be received by the Board of County Commissioners of Huron County, Ohio, at their office in the Court House, at Norwalk, Ohio, until 10.30 A. M., Standard time, Monday, the 24th day of January, 1910, for the furnishing and erecting of a steel riveted truss bridge over Huron River at Monroeville, Ohio, known as Main Street Bridge. Length of bridge, 204 feet, consisting of two spans each 62 feet and one span 80 feet. Width of roadway, 20 feet, with sidewalk on one side 4 feet in width.

Plans and specifications may be seen at the office of Surveyor of Huron County.

Bidders may submit alternate plans which shall conform to the general specifications on file.

Bidders will be required to deposit certified checks payable to Jay E. Smith, Auditor of Huron County, in the amount of $300.00 with bid.

Right is reserved to reject any and all bids.

By order of Huron County Commissioners.

JAY E. SMITH,
County Auditor.

Norwalk, Ohio, December 20, 1909.

TREASURY DEPARTMENT. Office of the Supervising Architect, Washington, D. C., December 18, 1909.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 25th day of January, 1910, and then opened, for the extension, remodeling, etc. (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. Post Office at Pawtucket, Rhode Island, in accordance with the drawings and specification, copies of which may be had from the Custodian at Pawtucket, R. I., or at this office at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

TREASURY DEPARTMENT. Office of the Supervising Architect, Washington, D. C., December 16, 1909.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 10th day of February, 1910, and then opened, for the extension, etc., except elevator (including plumbing, gas piping, heating apparatus, electric conduits and wiring and standard clock system), of the United States Post Office and Court House at Lynchburg, Virginia, in accordance with the drawings and specification, copies of which may be obtained from the Custodian, or at this office, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

Situations Wanted

Mechanical and Electrical Engineers.

MECHANICAL ENGINEER wishes change; at present employed by large engineering company; twelve years' experience design, estimates, specifications and construction of power plants; position in or near New York preferred. Address "W. A. 24," Engineering News, New York. 26-10t

MECHANICAL ENGINEER, 20 years' experience in high-class general engineering work, desires position; pumping machinery, compressed air work, power plants, industrial work, estimates, specifications; able to take charge of both engineering and commercial work. Address "D. B. 20," Engineering News, New York. 26-1t

MECHANICAL ENGINEER, specialist in guns, ammunition and projectiles, design manufacture and proof, would like position with or represent first-class concern. Address "R. B. 26," Engineering News, New York. 26-1t

Civil Engineers.

RECENT LEHIGH GRADUATE C. E. desires position where practical knowledge can be acquired; would consider position in any branch of civil engineering. Address "P. 24," Engineering News, New York. 26-1t

GRADUATE civil engineer, licensed surveyor, City of New York; four years' experience railroad location, construction, maintenance of way; one year municipal and building engineering; New York interview. Present work closing down. Can report at once. Address "O. B. 26," Engineering News, New York. 26-3t

Bridge and Structural Engineers.

STRUCTURAL ENGINEER (age 35), technical education, four years' shop and eight years office experience. Detailing, designing, and checking on Bridges, Mill and Office buildings. Past five years with leading fabricating company. Desires position preferably in charge of work for fabricating company. Address "K. B. 26," Engineering News, New York. 26-1t

OPEN FOR POSITION with general contracting or construction Co.; competent to take entire charge of structural and ornamental steel and iron work; estimating, subletting, superintendence. Address "B. A. 25," Engineering News, New York. 26-1t

ENGINEER seeks position, broad experience in design and erection of structural steel, reinforced concrete, mining, milling, smelting plants and machinery. Technical graduate, age 29. Address "H. B. 26," Engineering News, New York. 26-3t

Draftsmen.

EXPERIENCED structural draftsman and checker; also mechanical work; position in New York. Address "S. B. 26," Engineering News, New York. 26-1t

GERMAN draftsman and designer, 27, technical graduate, 3 years' shop experience, 5 years German technical college, Karlsruhe, Diploma Engineer, desires position with moderate salary. Address "E. A. 26," Engineering News, New York. 26-1t

Superintendents, Misc., etc.

FOR ENGAGEMENT on January first, young man experienced in estimating and contracting for structural and ornamental steel and iron work; full particulars if granted an interview. Address "A. A. 25," Engineering News, New York. 26-1t

CONTRACTOR'S ENGINEER, cost accountant and purchasing agent, is open for engagement. Address "X. B. 26," Engineering News, New York. 26-1t

YOUNG MAN, college graduate, five years' varied business and technical experience, desires position in concern where there is a good chance for advancement. Address "P. B. 26," Engineering News, New York. 26-1t

CONSTRUCTION SUPERINTENDENT and engineer, with extensive experience in building sewers, water-works, all kinds of concrete and reinforced concrete, location and grading for electric and steam railroads, driving long tunnels, accustomed to organizing quickly and handling large forces, and a keen executive, wishes to engage with a widely and reputably known contracting firm. Can be depended upon far from home office. Address "W. B. 26," Engineering News, New York. 26-3t

YOUNG MAN, 25, four years' experience on construction work and test borings, as inspector and foreman; five years' experience general clerical work, factory clerk, and etc., would like position construction or manufacturing company. Address "L. B. 26," Engineering News, New York. 26-4t

EXPERIENCED SUPERINTENDENT.—Has had charge of traffic, operation and maintenance of steam road and tramway. Prefers private company in Spanish speaking country. Address "I. B. 26," Engineering News, New York. 26-2t

Situations Open

WANTED—Draftsman. One having experience in paper mill work preferred. State age, education, experience, if married or single, salary expected, and enclose copy of testimonials. Address "B. B. 26," Engineering News, New York. 26-3t

WANTED—Estimators on structural steel work for buildings, etc. Young or middle aged men and graduate engineers with experience in estimating and structural drafting preferred. Give full particulars regarding age, education, experience, salary expected, and names and addresses of references. Address "M. B. 26," Engineering News, New York. 26-2t

WANTED in the office of Engineering News, a young man, graduate of a technical school, as indexer and librarian, with opportunity for promotion as ability warrants. Applicant must be familiar with engineering literature and capable of thorough and accurate work. Reply by letter only, stating fully education, experience in engineering work and in literary work if any, age, salary expected, and any other information useful in rating applications. Address "C. W. B.," care Engineering News, New York. 26-1t

WANTED—Draftsman for steel construction and reinforced concrete, used to mill work. State age, education, experience, if married or single, salary expected, and enclose copy of testimonials. Address "A. B. 26," Engineering News, New York. 26-3t

WANTED—By Cement company in Eastern Penna., several good, experienced draftsmen. Work embraces structural steel, reinforced concrete and mill machinery. In answering, state definitely salary desired and earliest date available. College graduates preferred. Address "C. B. 26," Engineering News, New York. 26-1t

FOR SALE

FOR SALE.

A Stone Crushing Plant

in running order, comprising
One No. 7½ McCully Crusher.
One No. 5 McCully Crusher.
With Engine and Boiler, etc., Complete.
Apply to
NAUGHTON COMPANY & ARTHUR McMULLEN,
161 Third Street, Long Island City.
26-1t